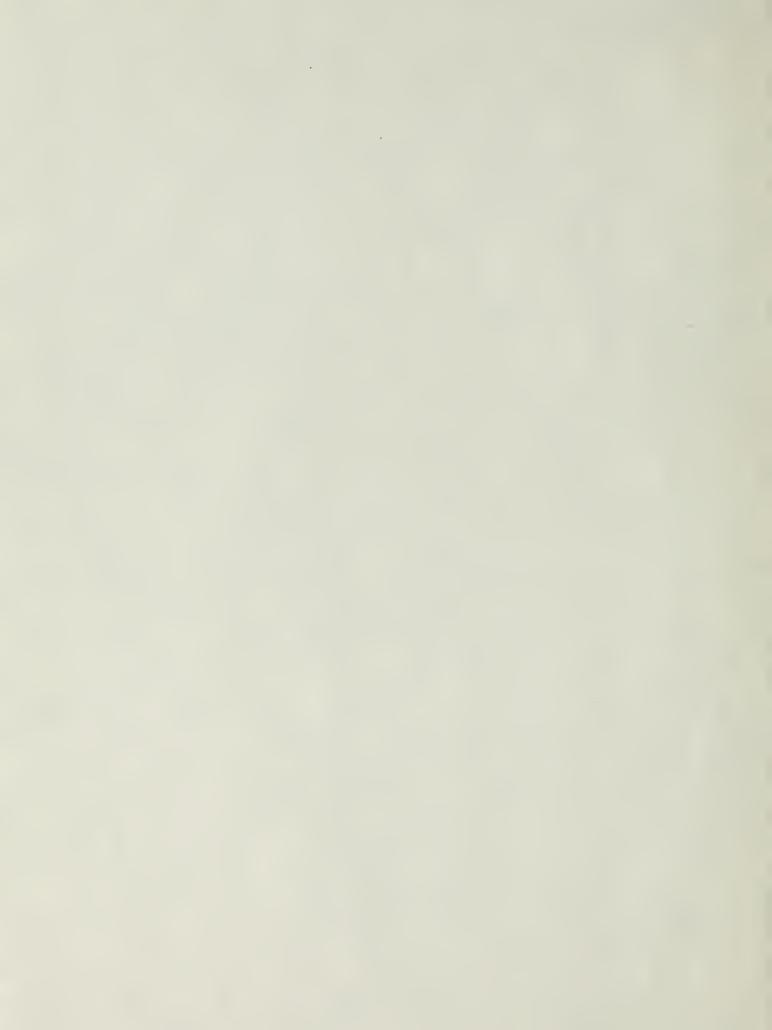
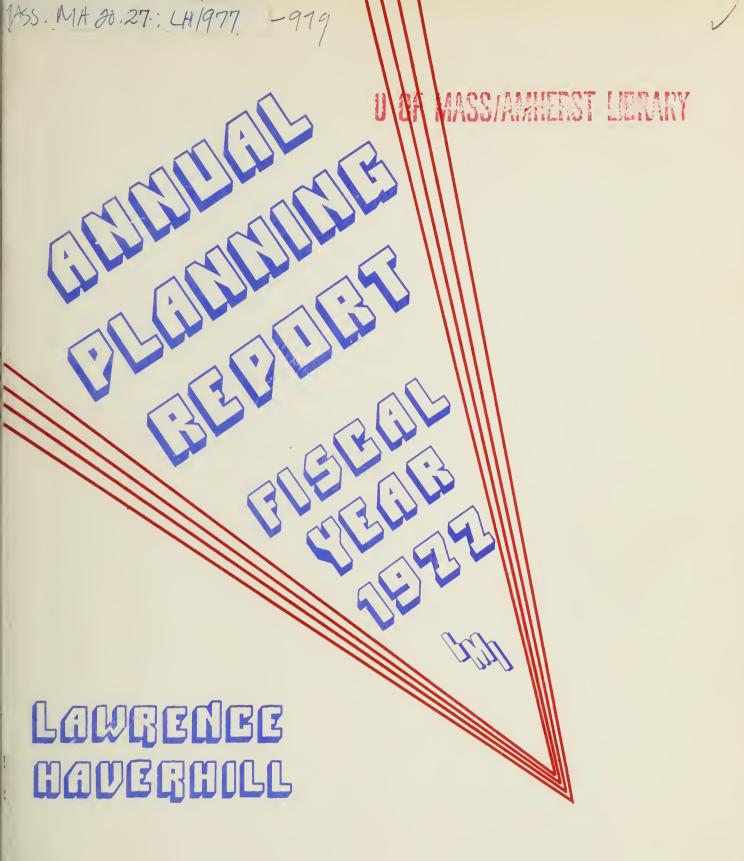




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MASSACHUSETTS DIVISION
OF EMPLOYMENT SECURITY
JOHN D. CROSIER, DIRECTOR
AFFILIATED WITH EMPLOYMENT
AND TRAINING ADMINISTRATION
U.S. DEPARTMENT OF LABOR



ANNUAL PLANNING REPORT

FISCAL YEAR 1977

STANDARD METROPOLITAN STATISTICAL AREA LAWRENCE-HAVERHILL, MASSACHUSETTS

Prepared by: Allan MacDonald

Senior Labor Market Economist Labor Area Research Department Massachusetts Division of

Employment Security

Charles F. Hurley Building

Government Center

Boston, Massachusetts 02114



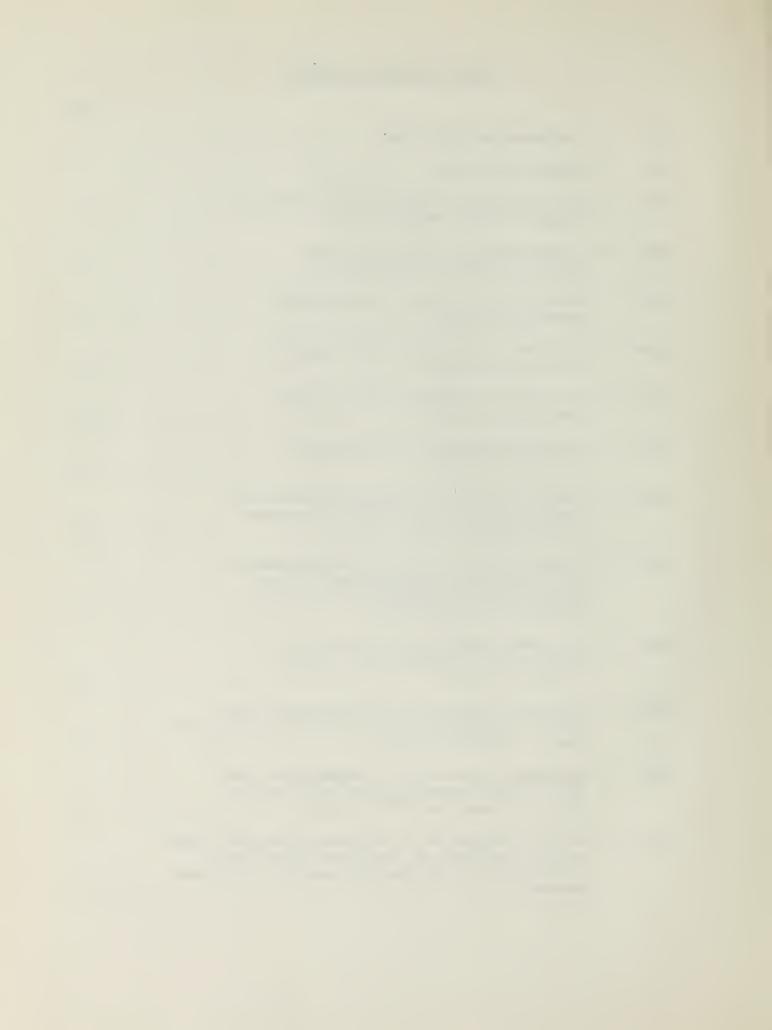
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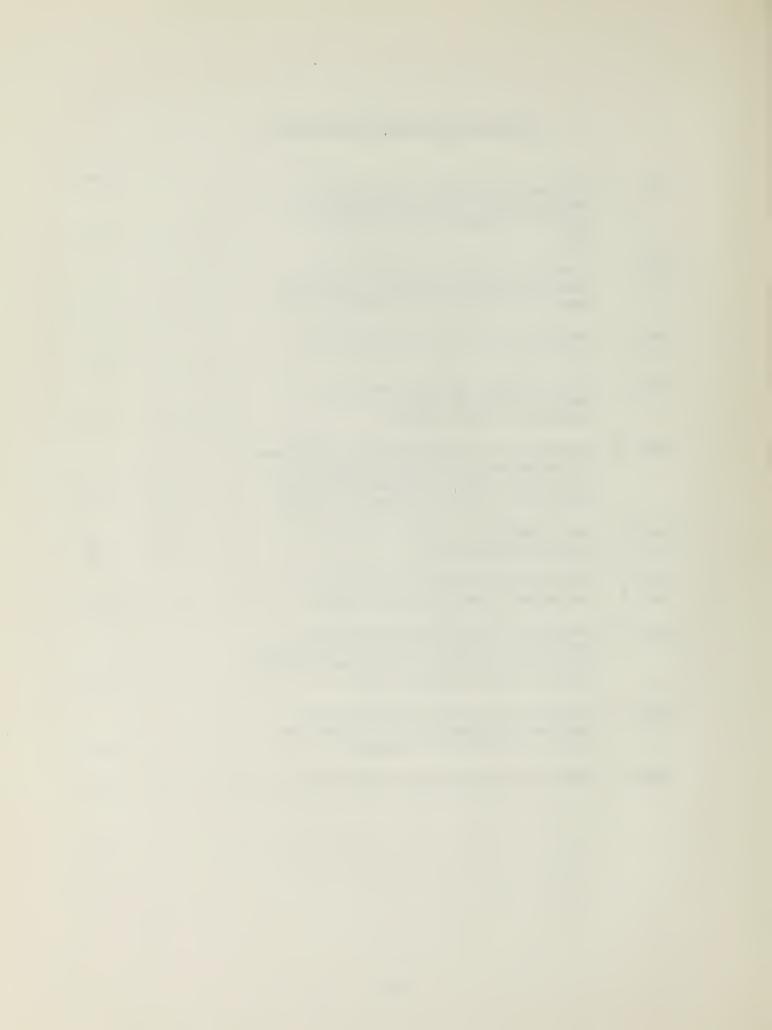
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1. Highlights and Conclusions

According to population projections for the Lawrence Haverhill SMSA the population should grow by 5.3 percent from 1970 to 1977. Part of this increase was the result of Spanish speaking persons moving into the area.

Within the past year durable goods employment rolls decreased in the Lawrence-Haverhill SMSA which in turn was partly responsible for the sharp rise in the number of unemployed persons over the year. Durable goods employment is expected to stablize within the next year while nondurable goods employment should increase slightly. Despite the problems durable goods employment is having at the present time it is expected that employment in this sector will increase within the next ten years. In the next decade all the major industries in the nonmanufacturing sector are expected to increase while nondurable goods employment should decrease.

Although the number of job openings for registered murses is to decline in the next decade, the number of job openings for nurses aides, and orderlies is to increase. In this time period there will be an increased demand for construction workers, auto mechanics, janitors, sextons, radio and television repairmen, drafters and typists.

For fiscal year 1977 there should be a reduction in the number of unemployed as a result of persons withdrawing from the labor force, a reduction in the inflation rate, and a slight improvement in the economy.

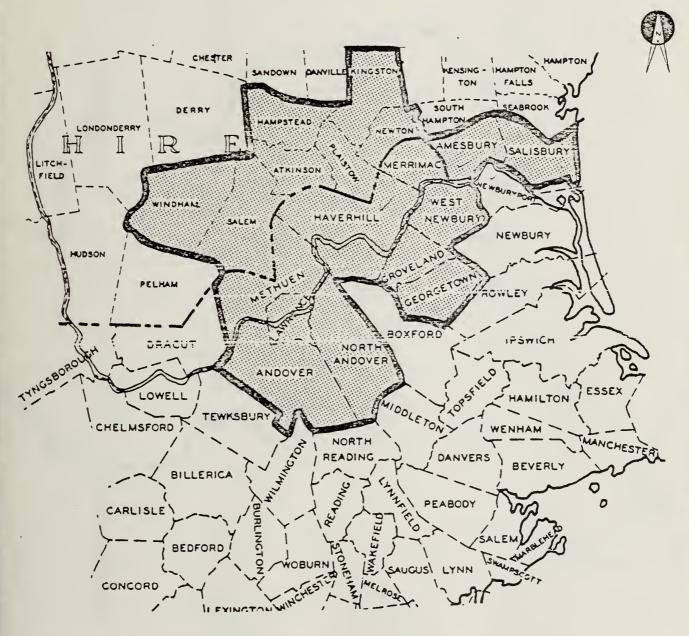
There are secondary jobs available but there is a shortage of primary jobs. The present recession has increased the number of all categories of applicants seeking work in the Lawrence-Haverhill SMSA but it has especially increased the number of the white, the educated, and the older worker.

It has been projected that for fiscal year 1977 there will be 10,816 economically disadvantaged in the Lawrence-Haverhill SMSA.

Some of the barriers to employment of the economically disadvanced are lack of private transportation, lack of knowledge of the English language, and lack of inexpensive day-care centers.



LAWRENCE-HAVERHILL SMSA



MASSACHUSETTS DEPARTMENT OF COMMUNITY AFFAIRS
BUREAU OF REGIONAL PLANNING



u. S. Office of Mgmt & Budget 27 April 1973 SCALE IN MILES



LAWRENCE CETA AREA AMESBURY ISALISBURY ERRIMAC WEST HAVERHILL NEWBURY NEWBURY GEORGETOWN) ROWLEY BOXFORD NORTH' IPSWICH ANDOVER DOVER MIDDLETON ESSEX NORTH WENHAM READING DANVERS MANCHESTE BEVERLY PEABODY 0 SAUGUS! -3-



2. Description of Area

a. Description of the Area-Location and Geographical Features

The Lawrence-Haverhill, Massachusetts-N.H. SMSA is located in northeastern Massachusetts and southeastern New Hampshire. It includes the cities of Lawrence and Haverhill; the towns of Andover, Amesbury, Georgetown, Groveland, Merrimac, Methuen, North Andover, Salisbury, and West Newbury in Massachusetts; and the towns of Atkinson, Hampstead, Kingston, Newton, Plaistow, Salem and Windham, in New Hampshire.

The Lawrence CETA area includes the cities of Lawrence and Haverhill; the towns of Amesbury, Andover, Boxford, Georgetown, Groveland, Newbury, Newburyport, North Andover, Methuen, Merrimac, Rowley, Salisbury, and West Newbury.

b. Economic Developments and Outlook

During 1975 the Lawrence-Haverhill SMSA's economy suffered from declining payrolls in the durable goods sector. The decrease in this sector has been substantial. The annual average employment in 1974 was 24,900 while in 1975 it was 22,700. This was a loss of 2,200 jobs as almost one out of every 10 jobs in durable goods ceased to exist. Most of the loss in jobs were from the electrical machinery industry. Employment rolls in electrical machinery decreased by 2,006 persons over the year which was a 17 percent reduction in the payroll. Hopefully, the electrical machinery industry has seen its worst days and employment will start to level off in the next few months. Many industries in the nondurable goods sector such as textiles, paper, and leather have been able to expand their payrolls over the year. These industries should continue to add workers to their employment rolls for the next few months. The one industry in the nondurable goods sector that went against this recent upward trend was rubber and miscellaneous plastics which is still suffering from the oil price increase of 1974. Unfortunately, the slight gain in nondurable goods employment was not large enough to offset the large loss of jobs in the durable goods sector.

Industries in the nonmanufacturing sector were also affected by the recession but not to the same degree as the manufacturing sector. Contract construction did not expand to the proportion to which it has in past years because of high interest rates, material shortages, and general lack of capital for building. Therefore, there has been a decrease in the number of contract construction workers that work on constructing new buildings. However, employment in construction other then building construction such as sewers, drainage projects etc. grew slightly. Transportation,



and public utilities lost some ground over the year due to a decline in trucking. Wholesale and retail trade and the service employment grew over the year. However, further growth in the service industry is now being hindered by a decline in amusement and recreation employment and miscellaneous services to businesses. Most of the increment in government employment was due to an increase in the payroll of the I.R.S. As the recession recedes employment in the different industries that make up the nonmanufacturing sector should increase.

c. Population and Labor Force Characteristics and Trends

According to population projections for the Lawrence-Haverhill SMSA the population should be 5.3 percent greater in 1977 than it was in 1970. In this same time period the population of Massachusetts is expected to grow by 2.9 percent. Part of the growth in population in the Lawrence-Haverhill SMSA since 1970 has been the result of a rapid expansion in the number of Spanish speaking persons within its boundaries. According to the United States Census in 1970 there were 3,261 Spanish speaking individuals in the SMSA. Recently, it has been estimated that the Spanish speaking population is over 11,000. The majority of this population came from Puerto Rico with the rest from Mexico, Central and South America. A large percentage of the Spanish speaking live in the city of Lawrence and most of the rest live in the city of Haverhill. These two cities have two main features that attract the Spanish speaking: first, a supply of secondary jobs (those jobs that pay low wages and have little chance of advancement) and second, a relatively tranquil atmosphere compared to the hectic pace and crowded conditions in New York City where up to recent years most of the Spanish speaking had migrated. Lawrence and Haverhill in their history have witnessed many different ethnic groups that have come to live in their territory. The last group, however, (the Spanish speaking) has one unique feature that most of the other groups did not have. That one thing, the only thing that separates them from their homeland (Puerto Rico), is the \$110 airplane ticket to the island. Other immigrants that came to Lawrence and Haverhill knew that they would probably never see their homeland again or if they did, it would be years in the future. This easy access to their homeland causes them to look upon their stay in Lawrence and Haverhill somewhat differently than other former ethnic groups. Many Spanish speaking plan to save up some capital and return home to open up a business.



Table A

Characteristics of the Population
Lawrence-Haverhill SMSA

Projected Fiscal Year 1977 Average

	Mal	.e	Fema	le	
Age	White	Nonwhite	White	Nonwhite	
Total	130012	945	139862	968	
0-15	43936	383	42276	406	
16-19	9640	54	9650	35	
20-24	9363	29	10186	126	
25-34	16879	218	16965	183	
35-44	15673	141	15695	81	
45-64	26505	75	30830	85	
65+	8016	45	14260	52	
Total 1	Population	2717	87		
Female		1408	330		
Black		. 6	. 669		
Other		12	7+7+		
Spanis	h	115	3474		



Table B

Characteristics of the Labor Force
 Lawrence-Haverhill SMSA
Projected Fiscal Year 1977 Average

	Ma.	le	Fem	emale		
Age White		Nonwhite	White	Nonwhite		
Total	68430	450	46939	-253		
16-19	6938	43	6055	10		
20-24	8932	24	6313	65		
25-34	14806	184	8140	73		
35-44	14627	120	8688	39		
45-64	21480	66	17461	54		
65+	1647	13	282	12		
Total Labor Force 116072						
Female			47192	•		
Black			422			
Other			281			
Spanish			3742			

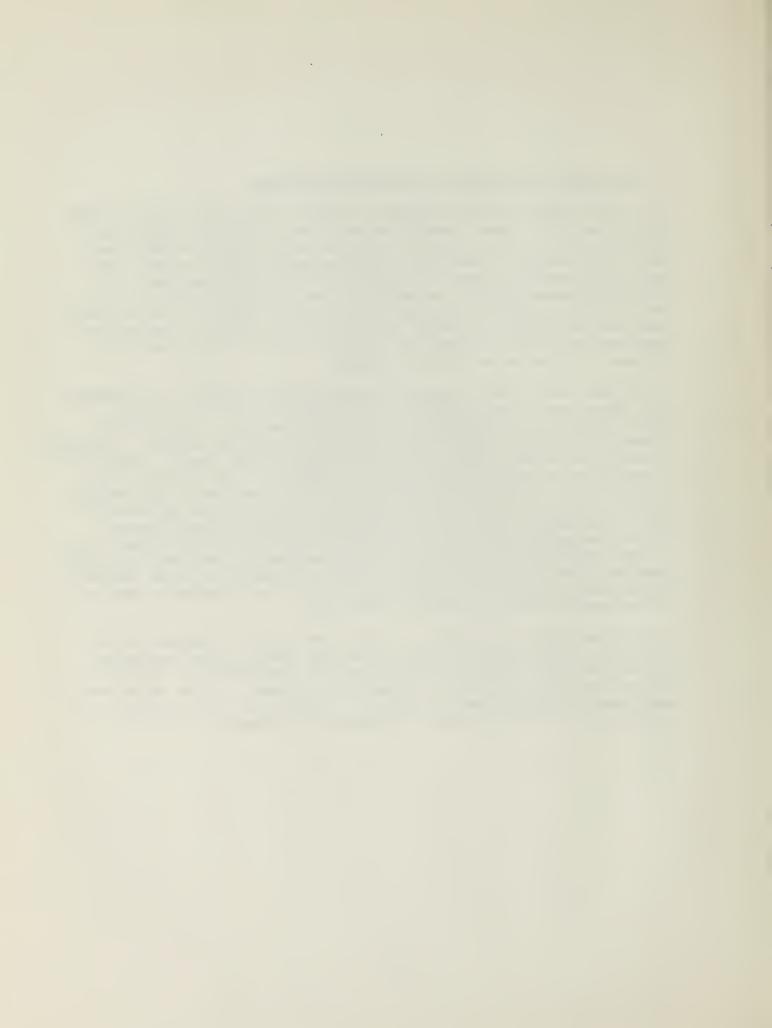


3. Employment Developments and Cutlook by Industry

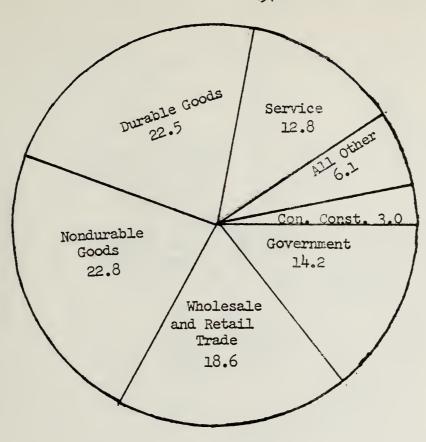
Since 1970 nonagricultural employment has risen every year except in 1971 when cutbacks in defense spending caused a decline in durable goods and in 1975 when once again durable goods employment dropped but this time due to the recession. Nondurable goods employment has decreased every year in the past five years. While total manufacturing employment has fluctuated, nonmanufacturing payrolls have been steadily growing. In the bottom graph on the following page the space between the broken lines shows how much ground the number of manufacturing jobs have lost to nonmanufacturing jobs in the past five years. This trend is expected to continue as shown on the following graphs.

In the next twelve months prospects for improved employment in the durable goods sector are not encouraging. Although employment in this sector should stabilize, job opportunities will remain very poor. The two main industries in durable goods are electrical machinery and ordnance. Electrical machinery employment should bottom out in the next few months. There is a question of which direction ordnance's payrolls will be moving in the coming months. Much of the ordnance work done in the area is for foriegn countries and some of them are now balking at the high costs of American arms. Employment rolls in the nondurable goods sector should advance slightly reflecting a small gain in textiles and paper products payrolls. In the coming year total nonmanufacturing employment should increase, being propelled forward by expansion in wholesale and retail trade and service. Unfortunately, contract construction activity is not expected to come out of its present doldrums within the next year.

It is interesting to note that the short term (1 year) estimates do not always move in the same direction as the long term (10 year) estimates. In the short term textiles and paper products are expected to increase while in the long term they are expected to decrease. In the short term employment in durable goods and contract construction is not expected to grow but in the long term they are expected to increase.

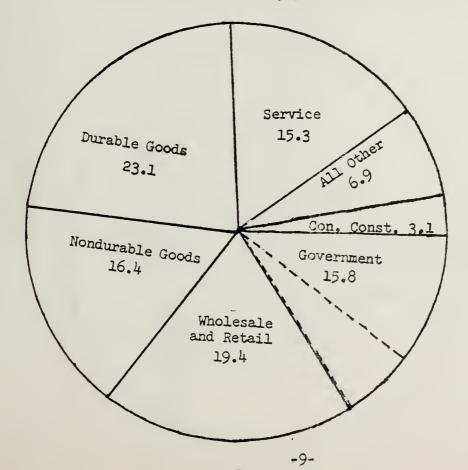


Graph 1 Employment by Industry In the Lawrence-Haverill SMSA 1970



Graph 2

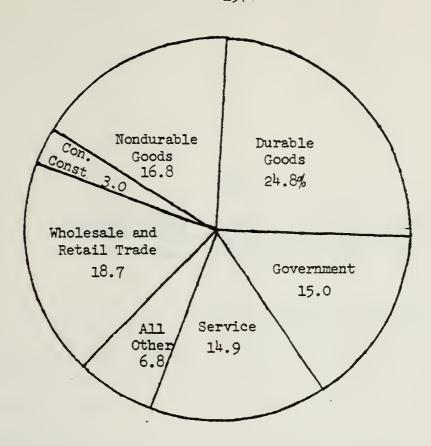
Employment by Industry In the Lawrence-Haverhill SMSA 1975



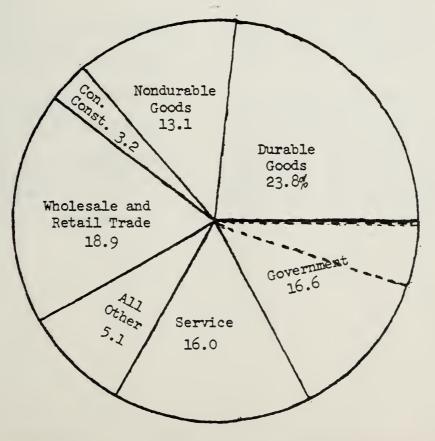
Estimated Manufacturing
Employment Lost
since 1970



Graph 3
Employment by Industry in the Lawrence-Haverbill SMSA 1974



Graph 4
Estimated Employment in the Lawrence-Haverhill SMSA
1985



Estimated Manufacturing
Employment Lost
Compared to 1974



Table 1

Lawrence-Haverhill, Massachusetts-N.H. SMSA
Nonagricultural Wage and Salary Employment
Annual Average-1970 to 1975
(in 000's)

	1970	1971	1972	1973	1974	1975
Nonagricultural Wage & Salary Employment	91.6	90.2	93.6	98.5	100.3	99.0
Manufacturing-Total	41.5	38.3	38.3	40.6	41.7	39.0
Durable Goods Machinery (exc. elec.) Other Durable Goods	20.6 2.5 18.1	2.2	2.2		24.9 2.6 22.3	2.4
Nondurable Goods Textiles Paper Rubber & Misc., Plastics Leather Other Nondurable Goods	2.0	2.0 1.4 2.6 6.7	2.2 1.3 2.8 6.2	2.4 1.4 3.2 5.7	2.3 1.4 2.9 4.4	2.5
Nonmanufacturing - Total Construction Trans., Comm., Utilities Trade Fin., Ins., & Real Estate Service, Misc., Mining Government	2.9 17.1	2.8 2.9 17.1 2.8	3.2 3.3 17.5 2.9	18.5	3.0 3.6 18.8 3.3 14.9	60.0 3.1 3.5 19.2 3.3 15.1 15.8



Table 2

Estimated Growth or Decline in Employment for the

Lawrence-Haverhill SMSA Based on the

Estimated Growth or Decline For Different Industries in Massachusetts

	Employment		Net Change 1974 1985	
Industry Sector	1974	1985	Amount	
Nonagricultural - Total	100.3	111.6	11.3	11.3
Menufacturing - Total	41.7	41.1	6	- 1.4
Durable Goods Machinery (exc. elec.) Other Durable Goods	2.6	26.5 2.8 23.7	+ .2	-
Nondurable Goods Textile Mill Products Paper Rubber & Misc., Plastics Leather Other Nondurable Goods	1.4	2.1 1.3 2.8 3.1	2 1 1 - 1.3	- 0.3
Nonmanufacturing - Total Construction Trans., Comm., Utilities Trade Fin., Ins., & Real Estate Service Government	3.6 18.8	3.6 5.7 21.1 3.8 17.8	+ .6 + 2.1 + 2.3 + .5 + 2.9	+20.3 +19.8 + 5.7 +12.1 +14.3 +19.4 +23.6

Source: Occupational Research Department DES



4. Employment Developments and Outlook by Occupation

The following chart shows that many job openings in the Lawrence Job Bank are secondary job openings. Secondary jobs are those jobs that pay poorly and there is little chance of advancement. There appears to be no shortage of secondary jobs but a shortage of primary ones (jobs that pay well or ones where there is a chance of advancement). Only 7.6 percent of the job openings are in the Professional, Technical Managerial category but 20 percent of the applicants have more than a high school education. In other words there were 4,807 applicants with more than a high school education while there were 448 job openings in the Lawrence Job Bank in the Professional, Technical, Managerial categories.

Table 3

Job Openings Received and Filled in the Lawrence Job Bank from July 1, 1975 to February 29, 1976

	Openings Received	Openings Filled	Ratio	Average Wage Paid per Hour
Total	5,862	3,643	62.2	\$2.84
Professional, Tech., Managerial Clerical Sales Domestic Other Services Farming, Fishing, & Forestry Processing Machine Trades Benchwork Structural Motor Freight & Transportation Packaging & Materials Handling Other	448 1,190 341 41 822 48 190 530 888 422 143 755 44	186 885 132 13 528 31 121 289 491 268 84 592 23	41.5 74.4 38.7 31.7 64.2 64.6 63.7 55.3 58.7 78.4 52.3	4.24 2.82 2.61 2.51 2.54 2.54 2.89 3.18 2.45 3.83 2.45



Employment Projections for Massachusetts from 1974 to 1985 Occupations with Above Average Annual Growth from 1974 to 1985

Table 4

		Annual Growth
Occupation	1974 to	1985 1970-74
Engineers, Electrical	148	72
Drafters	169	18
Electrical, Electonic Technician	159	185
Dentists	135	
Physicians, M.D. Osteopaths	234	
Registered Nurses	238	
Therapists	179	
Computer Programers	140	
Computer Systems Analysts	113	85
Elementary School Teacher	161	
Editors and Reporters	129	
Operations, Systems Research	146	133
Vocational, Educational Counselors	189	
Bank Financial Managers	274	256
Buyers, Wholesale, Retail	153	
Sales Manager, Retail Trade	193	156
Health Administrators	101	381
Lawyers	154	
Sales and Sales Workers, N.E.C.	1,094	-229
Secretaries, Other	2,202	1,530
Typists	313	
Cashiers	228	
Expeditors, Product Controllers	128	
Library Attendants, Assistant	90	•
Receptionists	183	
Stock Clerks, Storekeepers	173	-264
Teachers Aides, exc Monitors	265	-314
Carpenters and Apprentices	474	
Electricians and Apprentices	236	_
Excavating, Grading, Machine Op.	127	
Plumbers, Pipefitters and Apprentices	238	
Air Conditioner, Heating, Refrig. Mech.		
Auto. Mechanics and Apprentices	345	140
Radio, Television Repairers	112	- 16
Welders and Flame Cutters	118	76
Checkers, Examiners, etc., Mfg.	228	
Assemblers	231	
Lodging Quarters, Cleaners	118	
Bldg. Interior Cleaners. N.E.C.	503	+181
Janitors and Sextons	240	
Nurses Aides, Orderlies	76 8	
Practical Nurses	970	<u> </u>
Child Care Workers, Exc. Private	311	
Police and Detectives	123	
Const. Labor, exc. Carpenters Helpers	108	
Gardeners, Groundkeeper, exc. Farm	155	+136
,	<u>-</u>	+130

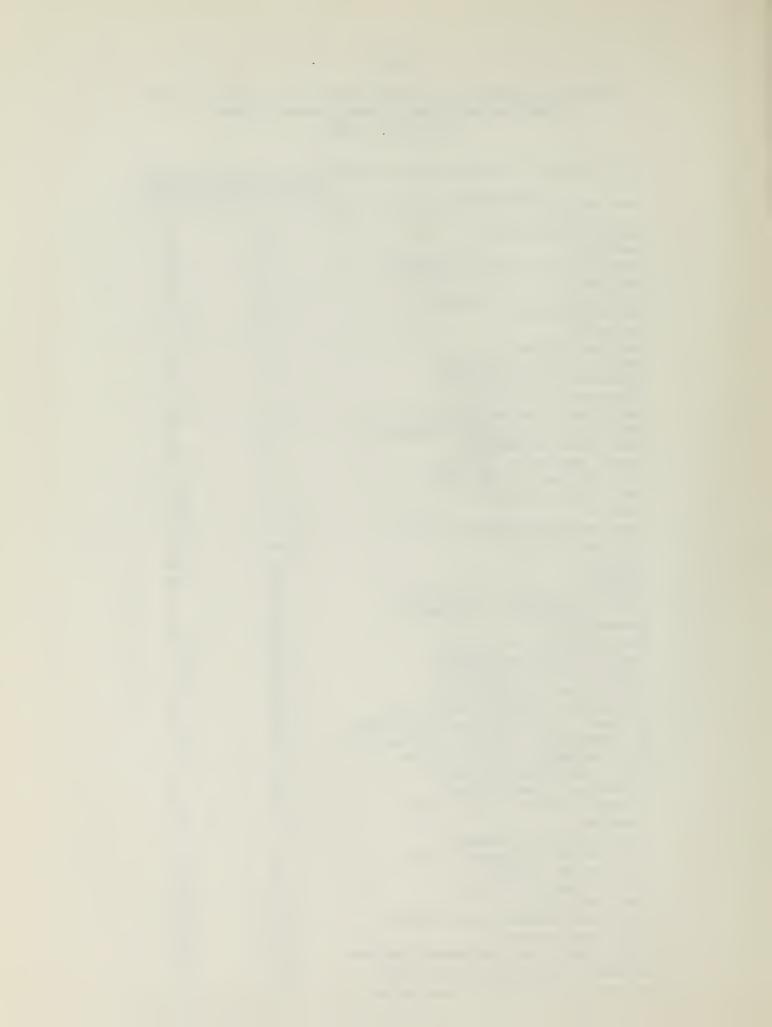


Table 5

Employment Projections for Massachusetts from 1974 to 1985

Occupations with Above Average Annual Decrease
from 1974 to 1985

	l	
	Average Annual	Decrease
Occupation	1974 to 1985	1970-74
College and University Teachers	-210	- 562
Secondary School Teachers	-398	614
	- 390 - 207	-127 ⁻
Office Machine Operators	-282	-127 -680
Keypunch Operators		
Bookkeepers	-117	+317
Postal Clerks	- 87	-234
Telephone Operators	-266	+ 94
Bakers	- 60	- 75
Semiskilled Metal Working	-132	- 132
Solderers	-102	-11 5
Spinners, Twisters, Winders	- 45	- 93
Packer, Wrapper, Exmeat, Produce	-148	-340
Clothing Ironers and Pressers	-1 79	- 366
Sewers and Stitchers	-644	-1,227
Shoemaking Machine Operatives	-184	- 895
Bus Drivers	- 85	+329
Barbers	-126	-272
Firefighters	- 88	395
Guards	-226	262
Childcare Workers	-241	-217
Private Households Cleaners, Servants	-245	-500
Farmers and Farm Managers	- 196	-121
Farm Laborers, Wage Workers	- 190	- 53
Tara Daggero, Hage Horners	4)	75

Source: Occupational Research Department DES



Table 6
Selected Occupations in the Lawrence-Haverhill SMSA
In Which the Ratio of the Number of Applicants
to the Number of Unfilled Job Openings*
is the Most Favorable

	Number	Unfilled	Ratio of 1/
	of	Job	Applicants to
Occupations	Applicants	Openings	a Job Opening
Occupation in Chemistry	. 5	2	3
Occupation in Psychology	2 2	14	2
Electrical Engineering	34	8	4
Nurse, Anesthetist	27	4 2 5	7
Vocational Education	4	2	2 5
Personnel and Training	26	5	
Social and Welfare Work	31	20	2
Typing, Filing & Related Occupations	85	36	2
Key-punch Operator	82	7	12
Life Insurance Salesman	7	13 18	1
Cashier-Checker	71	18	4
Kitchen Helper	66	6	11
Guards and Watchmen	45	26	2
Grounds Keeper	14	9	2
Molders, Coremakers and Related Occup.	8	6	1
Weavers and Related Occupations	7	11	1
Machines Trades Occupations	63	14	5
Cutter	9	8	1
Sewing Machine Operators (garment)	43	36	1
Sewing Machine Operators (nongarment)	62	15	4
Automatic Equipment Technician	· 14	14	4
Brick and Stone Masons and Tile Setter	31	12	3
Maintenanceman, Building	45	11	4

^{*} Unfilled Openings - Those listed in the Lawrence DES Job Bank.

^{1/} Rounded to the nearest whole number.



After witnessing an excess number of construction workers in recent years, it is interesting to note that during the next ten years the demand for construction workers is expected to increase. Although the number of new registered nurses needed is to decline in the next decade the number of nurses aides and orderlies is to increase. There will also be an increased demand for auto mechanics, janitors, sextons, radio and television repairman, drafters, and typists. Some of the economically disadvantaged workers today, if they receive some training, may be able to land jobs in one of the expanding occupations mentioned above. Some of the occupations expected to experience a further decline in the number of openings are bus drivers, guards, and farm laborers.

Table 7

Job Openings Received and Filled by Occupational
Category and Hourly Wage Rate for
February 1975 and February 1976

ry Percentage February February Percentage	
Change 1975 1976 Change	
3 + 1.4 2.78 2.84 + 2.2	
3 +10.3 3.90 4.24 + 8.7	
2 + 1.8 2.77 2.82 + 1.8	
7 + 5.8 2.30 2.61 +13.5	
) - 0.4 2.47 2.54 + 2.8	
+ +13.8 3.52 3.83 + 8.8	
3 + 2.6 2.80 2.81 + 0.4	
7 + 4.8 3.55 4.07 +14.7	
	6 Change 1975 1976 Change 3 + 1.4 2.78 2.84 + 2.2 8 +10.3 3.90 4.24 + 8.7 2 + 1.8 2.77 2.82 + 1.8 7 + 5.8 2.30 2.61 +13.5 2 - 2.6 2.30 2.51 + 9.1 0 - 0.4 2.47 2.54 + 2.8 6 + 1.1 2.69 2.54 - 5.6 4 + 1.7 2.71 2.89 + 6.6 4 + 1.7 2.71 2.89 + 6.6 6 + 5.7 2.84 3.18 +12.0 8 + 2.4 2.51 2.45 - 2.4 4 +13.8 3.52 3.83 + 8.8 8 + 2.6 2.80 2.81 + 0.4

Source: ESARS

Although the inflation rate in the past year has been much greater than 2.2 percent, the hourly wage rate for jobs filled in the Lawrence Job Bank only increased by 2.2 percent compared to a year ago. The higher skilled jobs tend to do better than the lower skilled jobs in keeping up with inflation.



5. Recent Trends in Unemployment

The annual average number of unemployed workers in the Lawrence-Haverhill SMSA for the year 1975 was 17,700 and this was about double the number unemployed for 1974. This increase reflected the worsening of economic conditions.

In January 1975 the Federal Supplementary Benefit Program and the Supplementary Unemployment Assistance Program were implemented. According to the Department of Labor Methodology all persons collecting unemployment benefits under the Federal Supplementary Benefits Program are included as unemployed - a technicality which enables many older workers previously out of the labor market to qualify as being in the labor force and thus being eligible to receive the benefits of the FSB Program while increasing the unemployed rolls at the same time. At present most of the retirees are not counted as unemployed for they both have exhausted their benefits and are no longer estimated as unemployed exhaustees.

For fiscal year 1977 there should be a reduction in the number of unemployed as a result of persons exhausting their unemployment benefits, a reduction in the inflation rate (when the inflation rate goes up it forces many secondary workers into the labor market), and a slight improvement in the economy.

Table 8

Industries of Last Attachment of the Totally Unemployed Based on Claims for Total U.I. Benefits for February 1976

			Percent of Unemployed Females
Industry	Number	Percent	in each Industry
Total	5,765	100.0	
Construction	1,175	20.4	2.2
Manufacturing	1,729	30.0	48.2
Electrical Machinery	744	12.9	56.3
Leather	149	2.6	55•7
Transportation,			
Communications, & Utilities	113	2.0	15.0
Wholesale & Retail Trade	707	12.3	36.1
Finance, Ins. & Real Estate	116	2.0	52.6
Services	505	8.7	49.3
Government	279	4.8	49.1
All Others	1,141	19.8	40.3

Source: DES Tabulation of Benefit Payments

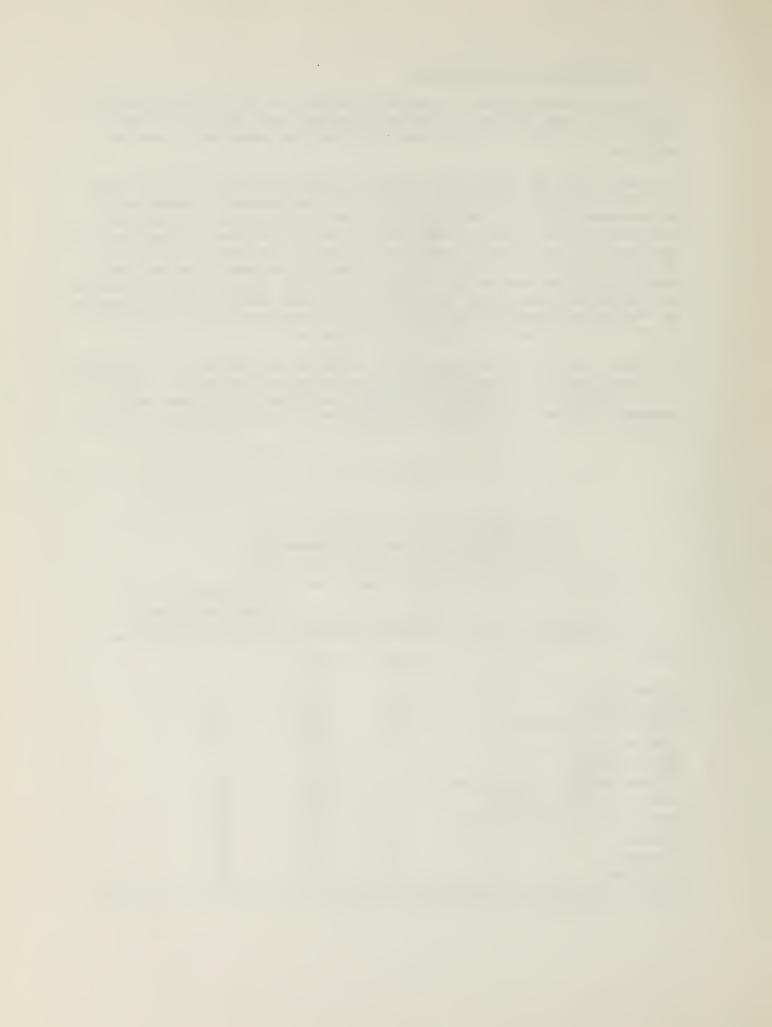
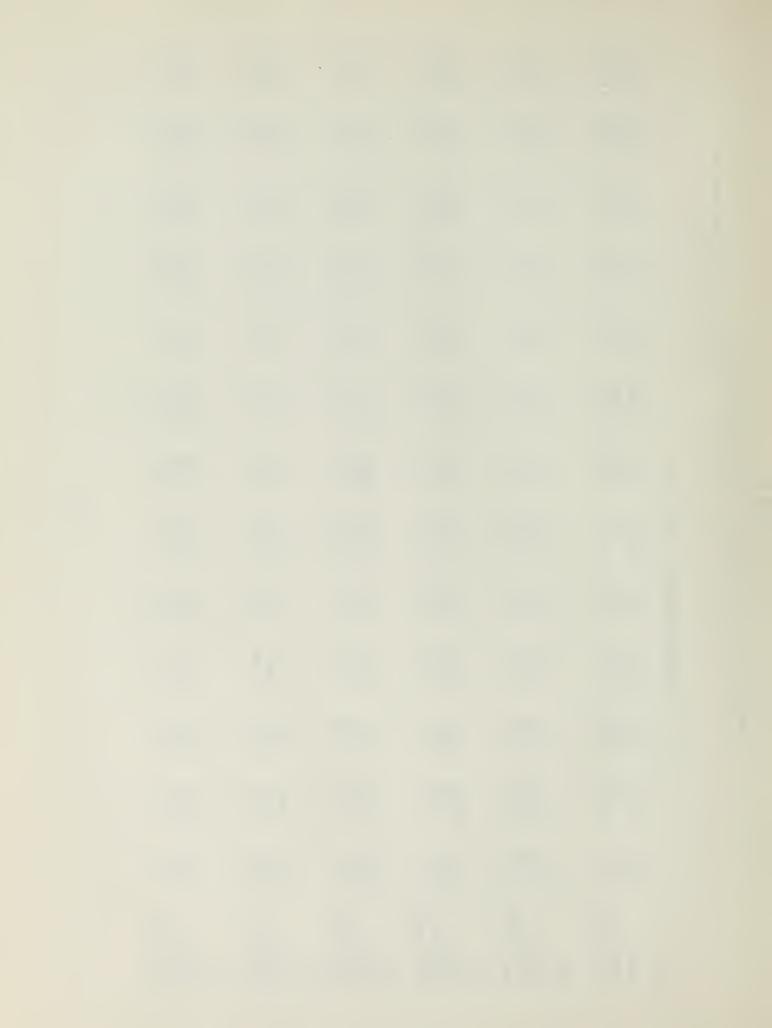


Table 9

MONTHLY LABOR FORCE STATISTICS FROM 1970 TO 1975

PREPARED BY: RESEARCH & INFORMATION SERVICE MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY

	ANN AVG 105600 6500 112100 5.8	102300 9600 1111900 8.6	108500 8300 116800 7.1	114300 8700 123000 7.1	117500 9600 127100 7.6	119100 17700 136800 12.9
	DEC 103600 7700 111300 6.9	104200 9800 114000	110300 7600 117900 6.4	116500 9800 126300 7.8	118500 10800 129300 8.4	118100 16700 134800 12.4
	NOV 103200 8100 111300 7.3	104400 8900 113300 7.9	109600 6900 116500 5.9	116100 8700 124800 7.0	116700 9600 126300 7.6	119000 17200 136200 12.6
	OCT 103200 6800 110000	103500 8200 111700 7.3	110800 7100 117900 6.0	116600 8300 124900 6.6	118900 8800 127700 6.9	119100 17500 136600 12.8
	SEPT 105200 6700 111900 6.0	101500 8500 110000	109100 7200 116300 6.2	114200 8300 122500 6.8	118500 9300 127800 7.3	118300 17700 136000 13.0
	ΛUG 105300 7400 112700 6.6	101800 10600 112400 9.4	111200 7400 118600 6.2	115100 8500 123600 6.9	117100 8900 126000 7.1	119600 18700 138300 13.5
AREA	JULY 106800 9700 116500 8.3	101000 13200 114200 11.6	110400 9500 119900 7.9	116000 -11100 127100 8.7	118500 11000 129500 8.5	119300 21200 140500 15.1
	JUNE 109100 6700 115800 5.8	101400 11000 112400 9.8	110400 7500 117900.	114500 8400 122900 6.8	118200 9100 127300 7.1	119700 20600 140300 14.7
CE-HAVERHILL LABOR	MAY 108400 5200 113600 4.6	102600 9700 112300 8.6	107700 7600 115300 6.6	113900 7300 121200 6.0	118100 7800 125900 6.2	119100 18000 137100
LAWRENC	APR 108200 5000 113200	103600 8700 112300	107900 8900 116800	114000 122000 6.6	117500 8800 126300 7.0	119600 16900 136500 12.4
	MAR 104500 5100 109600	102000 9100 111100 8.2	105800 10400 116200 9.0	112200 8300 120500 6.9	116300 9600 125900 7.6	119200 16900 136100 12.4
	FEB 105500 5000 110500	100800 8800 109600 8.0	105200 9500 114700 -	111600 8600 120200 7.2	115800 10100 125900 8.0	118400 16100 134500 12.0
	JAN 104500 4400 108900 4.0	100900 9000 109900	103500 9800 113300 8.6	110300 8900 119200 7.5	115600 10900 126500 8.6	119300 14500 133800 10.8
1970	EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	1971 EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	1972 EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	1973 EMPLOY UNEMPLOY IABOR FORCE UNEMP RATE	1974 EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE



Characteristics of the Unemployed
Lawrence-Haverhill SMSA
Projected Fiscal Year 1977 Average

Table C

Category	Number Unemployed	Unemployment Rate
White Male White Female Nonwhite Male Nonwhite Female	7283 4137 88 62	10.6 8.8 19.6 24.6
Total Unemployed Female Black Other Spanish Vietnam Fra Veteran	11570 4199 108 42 700 805	10.0 8.9 25.6 15.0 18.7



6. Characteristics of Individuals in Need of Manpower Services

Comparison of Characteristics of Applicants in the Lawrence and Haverhill DES Offices from July 1, 1974 to February 1975, and from July 1, 1975 to February 29,1976.

	Table 10				
. 😅	1975 Percentage of the Total	1976 Percentage of the Total	Percentage Increase Compared to a Year Age		
Male	56.0	51.7	+28.1		
Female	714.0	48.3	+52.4		
	Ethnic				
	1975 Percentage of the Total	1976 Percentage of the Total	Percentage Increase Compared to a Year Ago		
White	96.9	97.3	+39.3		
Black	2.4	2.0	+16.5		
Other	0.7	0.7	+46.8		
Spanish Ame American	erican 8.4	7.2	+18.7		

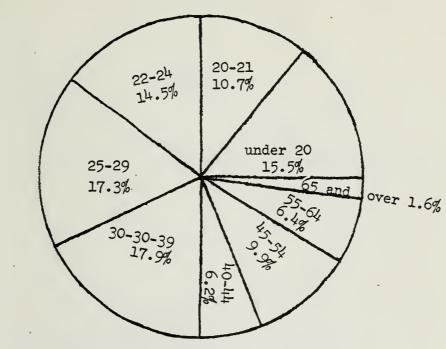
Source: ESARS

The percentage of female applicants has grown compared to a year ago and at the same time the percentage of minorities has decreased slightly.

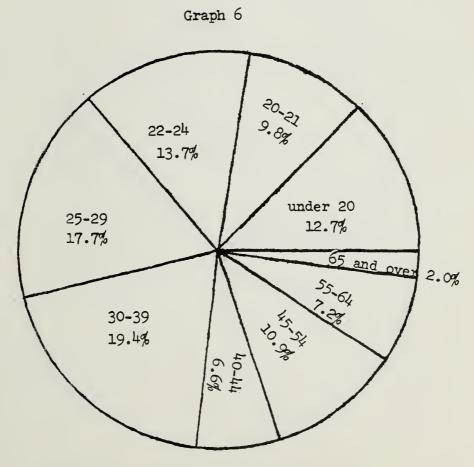


Graph 5

Age of Applicants in the Lawrence and Haverhill
Division of Employment Security Offices



from July 1, 1974 to February 28, 1975

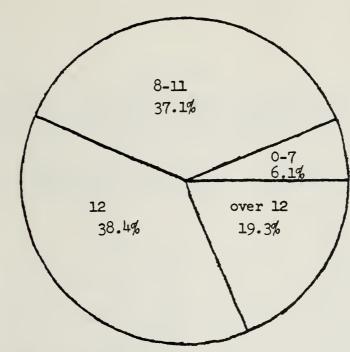


from July 1, 1975 to February 29,1976

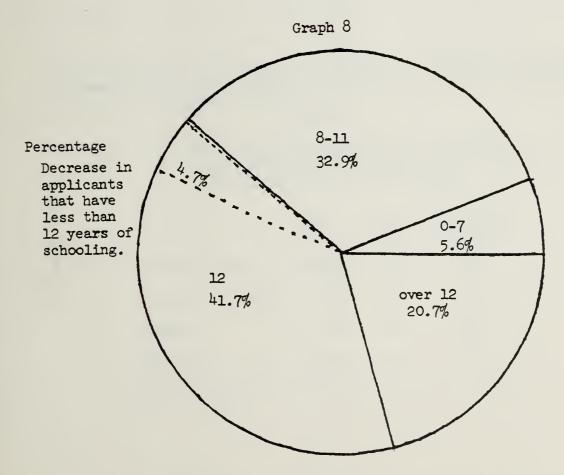


Graph 7

Highest School Grade of Applicants in the Lawrence and Haverhill Division of Employment Security Offices



from July 1, 1974 to February 28, 1975



from July 1, 1974 to February 29, 1976



Table 11

Comparision of the Characteristics of Applicants in the Lawrence and Haverhill Offices from July 1, 1974 to February 1975 and July 1975 to February 1976

	July 1, 1974 to Feb. Percentage to the T	
Total	16,290	24,352
Under 22 Years	4,265 26.2	5,507 22.6
45 Years or Older	2,918 17.9	4,917 20.2
Vietnam era Veterans	1,617 9.9	2,120 8.7
Minority	1,636 10.0	2,098 8.6
Females	7,161 44.0	11,722 48.1

Source: ESARS

The percentage of older workers, Vietnam area veterans, and females increased over the year while the percentage of minorities and under 22 years old decreased slightly.

Table 12

Applicants that are Veterans in the Lawrence and Haverhill DES Offices from July 1, to the End of February

	1975	1976	Percentage Increase
Veteran - Total	3,107	4,022	+29.5
Recently Separated	884	852	- 3.6
Disabled	204	287	+40.7
Vietnam Era	1,617	1,971	+21.9



According to the charts on the previous page there was a slight percentage gain in every age group over 25 years old compared to a year ago. There was also a slight percentage gain in this time period in the number of applicants that have graduated from high school and applicants that have more than a high school education. From the previous tables and charts a picture begins to emerge. The present recession has increased the number of all categories of applicants seeking aid in finding meaningful employment but it has especially affected the white, the educated, and the older workers.

7. Barriers to Employment of the Economically Disadvanced

One of the greatest barriers to employment of disadvantaged workers in the Lawrence-Haverhill SMSA is lack of knowledge of the English languagea real problem for the Spanish-speaking group who have recently migrated into the area. Another barrier to the disadvantaged is that they usually lack private transportation and the limited public transportation makes going to and from many job locations difficult if not impossible.

Many older workers with limited education are finding this to be a drawback in seeking better-paying jobs in order to maintain or better their present standard of living. Older workers displaced from the textile and leather products industries find that, although they are expert in their former jobs their skills have become obsolete in factories using new types of machinery or that their skills are not applicable to the requirements of other industries.

Two barriers to enrollees in the WIN (Work Incentive) program are the lack of sufficient day-care centers for the children of families headed by women and the lack of inexpensive and timely public transportation to and from work locations.



Table D

Additional Planning Data Projections

Lawrence-Haverhill SMSA

Projected Fiscal Year 1977 Average

Employed Part Time for Economic Reasons		
		Part Time Employment
	Total	for
Category	Employment	Economic Reasons
Total	104502	4500
White Male White Female Norwhite Male Norwhite Female	61147 42802 362 191	2163 2295 21 21
Persons 14 and Over, Receiving Welfare Payments		
Total	8756	
White Male White Female Nonwhite Male Nonwhite Female	2836 5773 32 115	
Economically Disadvantaged (18 and over)		
Total	10816	•
White Black Other Spanish	10604 182 30 1834	







MASSACHUSETTS DIVISION

ANNUA



LAWRENCE HAVERHILL **SMSA** AFFILIATED WITH EMPLOYMENT AND TRAINING ADMINISTRATION U.S. DEPARTMENT OF LABOR

1978





ANNUAL PLANNING REPORT FISCAL YEAR 1978

STANDARD METROPOLITAN STATISTICAL AREA LAWRENCE-HAVERHILL, MASSACHUSETTS

Prepared by: Allan MacDonald

Senior Labor Market Economist Labor Area Research Department

Massachusetts Division of

Employment Security

Charles F. Hurley Building

Government Center

Boston, Massachusetts 02114



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LAWRENCE-HAVERHILL SMSA



MASSACHUSETTS DEPARTMENT OF COMMUNITY AFFAIRS
BUREAU OF REGIONAL PLANNING

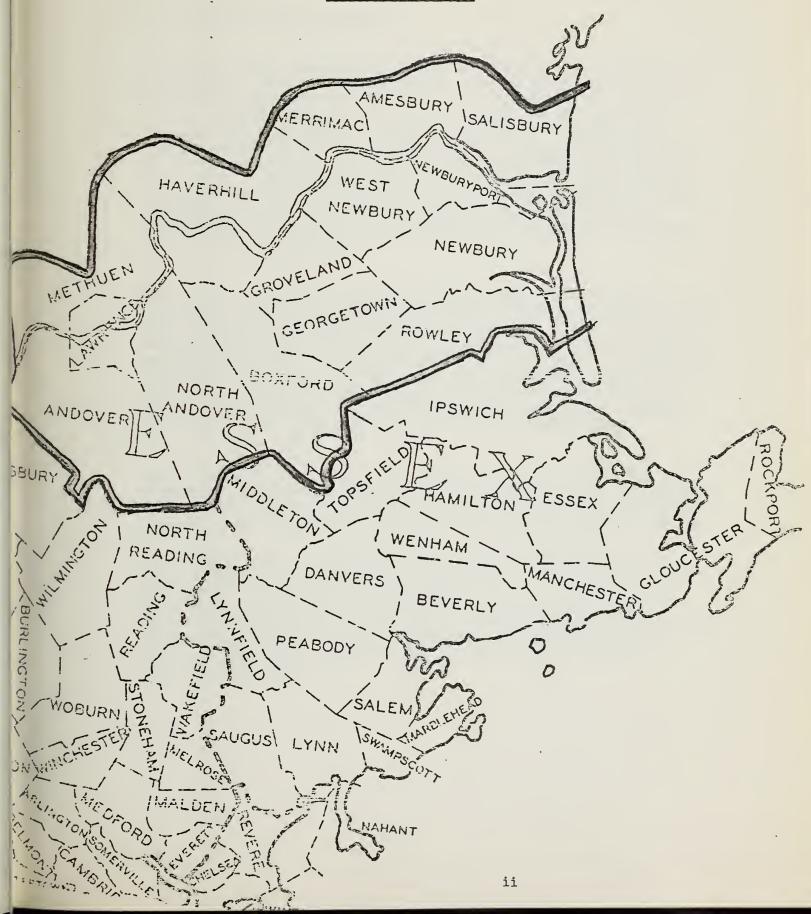


u. S. Office of Mgmt & Budget 27 April 1973

SCALE IN MILES



LAWRENCE CETA AREA





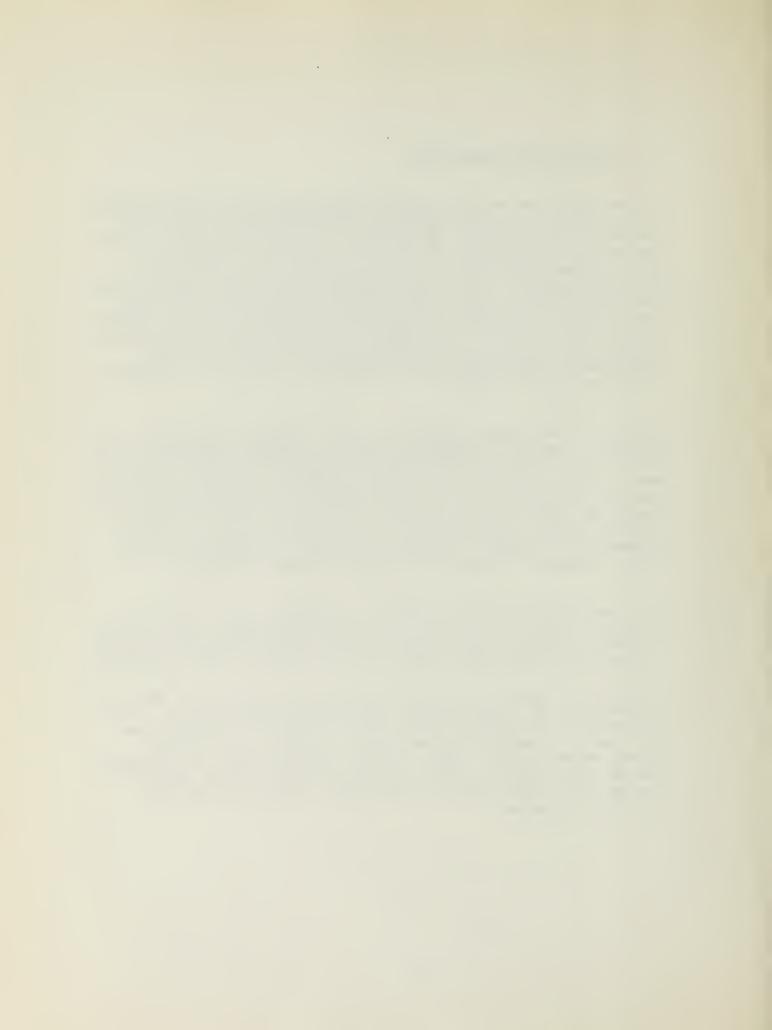
I. Highlights and Conclusions

In the 1970's the Lawrence-Haverhill SMSA experienced a marked growth in the labor force. This expansion was caused not so much from an increase in the population but rather by a significant growth in the number of females seeking jobs and to a lesser degree that there is now a smaller percentage of children and a greater percentage of working age adults in the total population. Although the labor force has been increasing rapidly employment opportunities have not kept pace. This is especially true in 1974 and 1975 when nonagricultural employment not only did not increase but actually declined with major losses reported in the electrical machinery industry. However, employment in most manufacturing industries is expected to stabilize in the next twelve months.

Within the next decade, employment in the following industries: electronic computing equipment, furniture, wholesale and retail trade, service, and contract construction is expected to expand while employment in fabric mills, bakery products, footwear, and paper mills is expected to decline. In the next ten years there will be an increased demand for auto mechanics, janitors, radio and television repairmen, drafters, typists, and construction workers while there will be a decrease in the number of openings for sewers, stitchers, secondary school teachers, telephone operators and keypunch operators.

For fiscal year 1978 there should be a reduction in the number of unemployed persons as a result of a slight improvement in the economy. It has been projected that for fiscal year 1978 there will be 16,363 economically disadvantaged persons in the Lawrence and Haverhill SMSA.

For every job opening listed with the Lawrence and Haverhill DES offices there are ten job seekers registered in these offices. About 50 percent of the applicants are females. Some of the occupations which have an excess of applicants are: industrial engineering, primary school teacher, stock checking, attendant work, and carpentry. Some of the occupations where the applicants had the best chance of finding a job were: nursing, social work, sheet metal work and university education.



DES employment offices in Lawrence and Haverhill had the most success in filling job openings for the following occupations; clerical, service, motor freight, transportation, and packaging and material handling. They had the least success in professional, technical, and managerial and sales occupations.



II. Description of Area

a. Definition of the Area-Location and Geographical Features

The Lawrence-Haverhill, Massachusetts-N. H. SMSA is located in northeastern Massachusetts and southeastern New Hampshire. It includes the cities of Lawrence and Haverhill; the towns of Andover, Amesbury, Georgetown, Groveland, Merrimac, Methuen, North Andover, Salisbury, and West Newbury in Massachusetts; and the towns of Atkinson, Hampstead, Kingston, Newton, Plaistow, Salem and Windham, in New Hampshire.

The Lawrence CETA area includes the cities of Lawrence and Haverhill; the towns of Amesbury, Andover, Boxford, Georgetown, Groveland, Newbury, Newburyport, North Andover, Methuen, Merrimac, Rowley, Salisbury, and West Newbury.

b. Population and Labor Force Characteristics and Trends

According to population projections for the Lawrence-Haverhill SMSA the population will be 9.6 percent greater in 1978 than it was in 1970. Almost all of this growth has taken place in the towns and not in the cities of Lawrence and Haverhill. In this same time period of population of Massachusetts is expected to grow by 3.3 percent.

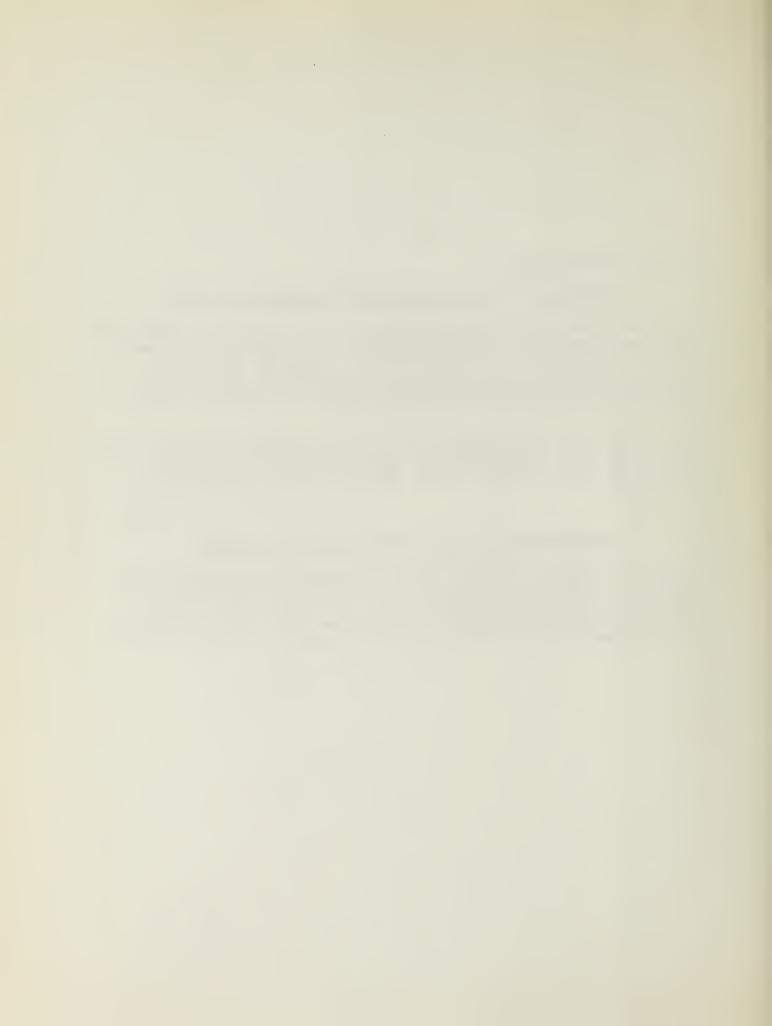


Table I

POPULATION COMPOSITION FOR 1970 AND POPULATION PROJECTIONS FOR FISCAL YEAR 1978

	1970 Population	Projected 1978	Change	Percentage Change
TOTAL	258,876	283,774	24,898	+ 9.6
White Male 0-15 16-17 18-19 20-24 25-34 35-44 45-64 65 +	122,875 39,938 4,865 3,627 7,922 14,364 14,014 26,422 11,723	13 ⁴ ,702 40,602 5,187 5,187 10,483 18,017 14,748 28,169 12,309	11,827 664 322 1,560 2,561 3,653 734 1,747 586	9.6 1.7 6.6 43.0 32.3 25.4 5.2 6.6 5.0
White Female 0-15 16-17 18-19 20-24 25-34 35-44 44-64 65 +	133,812 38,116 4,390 4,300 9,668 15,077 14,178 29,564 18,519	146,558 38,724 5,235 5,235 11,348 20,244 14,452 31,540 19,780	12,746 608 845 935 1,680 5,167 274 1,976 1,261	9.5 1.6 19.2 21.7 17.4 34.3 1.9 6.7 6.8
Nonwhite Male 0-15 16-17 18-19 20-24 25-34 35-44 45-64 65 +	1,050 432 41 10 34 191 121 125 96	1,204 475 49 49 69 99 226 159	15 ⁴ 43 8 39 35 -92 105 3 ⁴ -18	14.7 10.0 19.5 390.0 102.9 -48.2 86.8 27.2 -18.7
Nonwhite Female 0-15 16-17 18-19 20-24 25-34 35-44 45-64 65 +	1,139 413 17 25 100 183 138 151	1,310 473 41 41 65 185 229 160 116	171 60 24 16 -35 2 91 9	15.0 14.5 141.2 64.0 -35.0 1.1 65.9 6.0 3.6



The declining birth rate in recent years accounts for the small growth in the age group 0-15 years since 1970. The large increase in the 18 to 24 year group was partly the result of many families with young children moving into the area in the 1960s and high birth rates in the 1950s. The growth in the 25 to 34 year group since 1970 was caused by migration into the area and the post war high birth rate in the late 1940s.

Table 2
Labor Force Composition
For 1970 and Labor Force Projection
For Fiscal Year 1978

	Labor	Force	Percentage
	1970	1978	Increase
Total White Male White Female Nonwhite Male Nonwhite Female	112,854	136,752	21.2
	65,950	76,336	15.7
	46,091	59,432	28.9
	484	578	19.4
	329	406	23.4

In recent years the female labor force has been growing at a faster pace than the male labor force.



Table 3
Participation Rates 1970 and 1978

	Participation Rate	Participation Rate
	1970	1978
White Male		
16-17 18-19 20-24 25-34 35-44 45-64	44.3 67.2 85.7 97.2 97.7 91.2 27.2	60.7 80.1 89.9 97.2 97.2 88.2 23.8
White Female		
16-17 18-19 20-24 25-34 35-44 45-64 65 +	43.5 56.4 60.6 45.6 56.7 63.4 12.1	75.8 69.7 70.7 56.9 63.5 64.5 14.0

Much of growth in the labor force shown in Table 2 was the result of an increase in the labor force participation rate rather than an increase in population. Population only expanded by 9.6 percent while the labor force was enlarged by 21.2 percent.



III. Employment Developments and Outlook by Industry

From 1970 to 1974 nonagricultural employment has risen every year except in 1971 when cutbacks in defense spending caused a decline in durable goods. In 1975 the recession was especially felt in the Lawrence-Haverhill SMSA. Nonagricultural employment plummeted downward in 1975. In 1976 employment continued to decrease but a slower pace than in 1975. In the last two years manufacturing employment dropped rapidly with major losses occurring in the electrical machinery industry. Although the nondurable goods sector is in a secular decline, in the past two years it has remained fairly steady.

In 1975 something unusual happened in the nonmanufacturing sector, which is in a secular uptrend, - the sector suffered a loss in employment. This reduction was the result of cutbacks in contract construction, wholesale and retail trade, and service payrolls. However, in 1976, the nonmanufacturing sector once again is enlarging its employment rolls.

In the next twelve months employment in durable goods is expected to level off with no major declines or increases. The industries in the nondurable goods sector should still remain stable with the possible exception of leather. This industry is facing strong competition from foreign imports; therefore, the leather industry may be forced to reduce its payrolls.



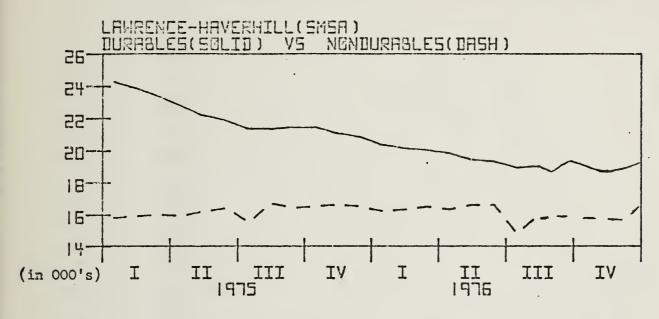
Table 4

Lawrence-Haverhill, Massachusetts- N.H. SMSA
Nonagricultural Wage and Salary Employment
Annual Average-1970 to 1976
(in 000's)

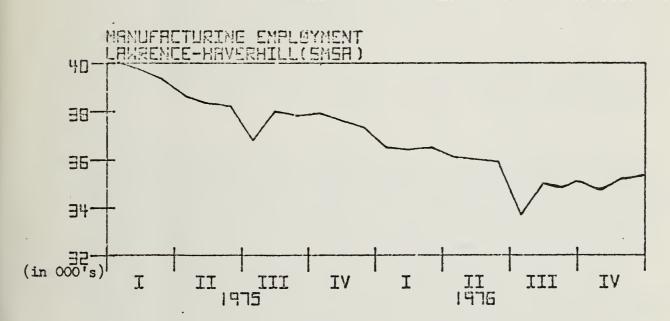
	1970	1971	1972	1973	-1974	1975	1976
Nonagricultural Wage and Salary Employment	91.6	90.2	93.6	98.5	99.8	94.7	92.7
Manufacturing - Total	41.5	38.3	38.3	40.6	41.7	38.4	35.6
Durable Goods Machinery (exc. elec.) Other Durable Goods	20.6	19.2	19.4	21.9	24.9	22.2	19.4
	2.5	2.2	2.2	2.4	2.6	2.2	2.2
	18.1	17.0	17.2	19.5	22.3	20.0	17.2
Nondurable Goods Textiles Paper Rubber & Misc. Plastics Leather Other Nondurable Goods	20.9	19.1	18.9	18.7	16.8	16.2	16.2
	2.8	2.0	2.2	2.4	2.3	2.0	2.3
	2.0	1.4	1.3	1.4	1.4	1.3	1.4
	2.8	2.6	2.8	3.2	2.9	2.4	1.8
	7.0	6.7	6.2	5.7	4.4	4.7	4.8
	6.3	6.4	6.4	6.0	5.8	5.8	5.9
Nonmanufacturing - Total	50.1	51.9	55.3	57.9	58.1	56.3	57.1
Construction	2.7	2.8	3.2	3.3	3.0	2.3	2.1
Trans., Communications, Utilities Trade	2.9	2.9	3.3	3.7	3.6	3.5	3.2
	17.1	17.1	17.5	18.5	18.8	18.4	19.0
Fin., Insurance, and Real Estate Service, Misc., Mining Government	2.6	2.8	2.9	3.1	3.3	3.3	3.3
	11.8	12.7	14.1	14.8	14.9	14.3	14.4
	13.0	13.6	14.3	14.5	14.5	14.5	15.1



Graph 1

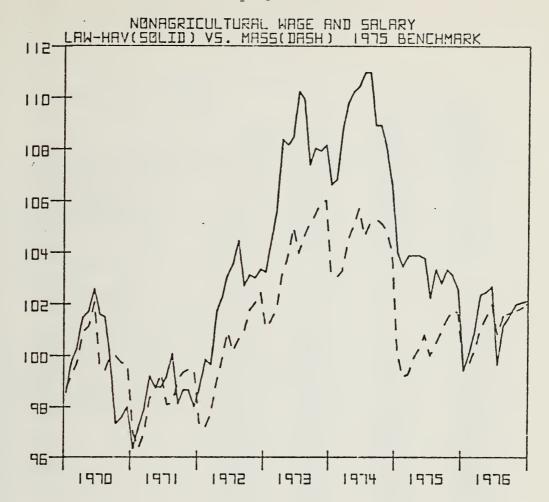








Graph 3



Nonfarm employment in the above graph was indexed on the basis that 1970 annual average nonfarm employment for both the Lawrence-Haverhill SMSA and the State was 100. In the first half of 1971 Lawrence-Haverhill SMSA nonfarm employment followed closely the direction of the State's nonfarm employment. In the next two years (1972 and 1973) employment in the SMSA grew at a faster rate than employment in the State. However, in 1974 the number of jobs in the SMSA began a rapid decline with only a few interruptions in the downturn until 1976. In the first few months of 1976 employment in the SMSA expanded faster than the State's employment but in the middle of 1976 the Lawrence-Haverhill SMSA payrolls once again dropped at a quicker rate than the State's payrolls. It is interesting to note that 6 years since 1970, employment in both the State and Lawrence-Haverhill SMSA in 1976 is at about the same level as it was in 1970.

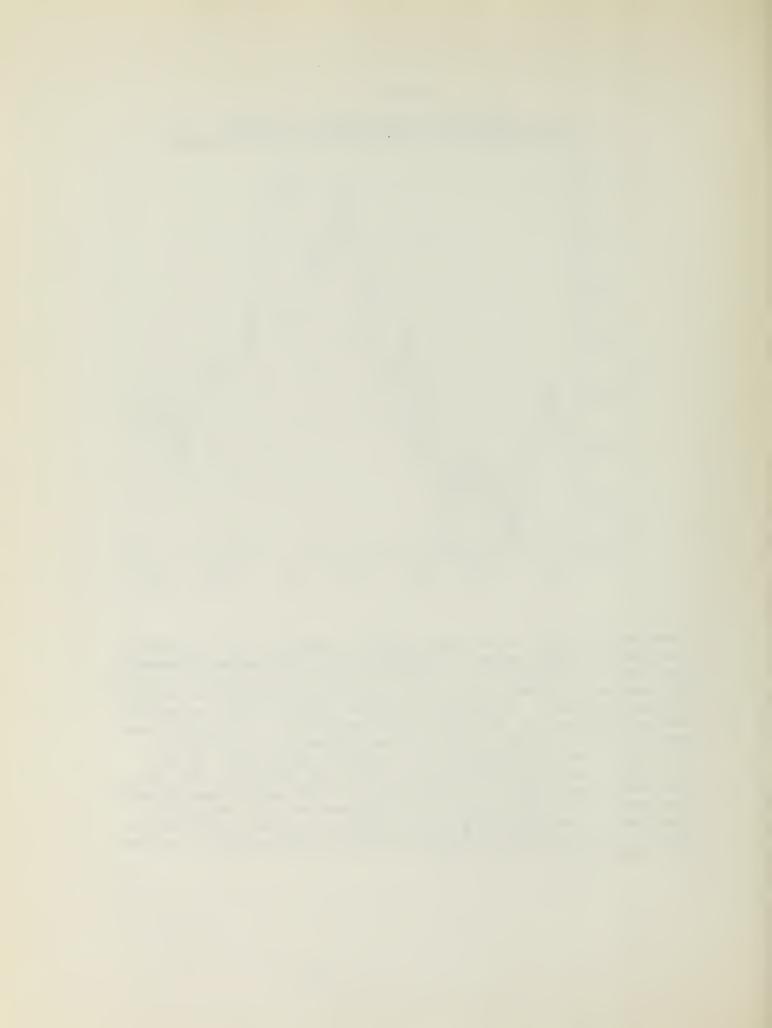


Table 5

Estimated Growth in Employment
For Specific Industries
For The Lawrence-Haverhill SMSA

		•	Net	Change
Industry	Emp 1	Loyment 1985	Amount 1974	Percent Increase 1985
General Building Contractor Furniture and Fixtures Fabricated Metal Products Electronic Computing Equip. Knitting Mills Printing and Publishing	792 778 1,595 903 1,814	1,050 900 1,730 1,250 2,050	258 122 135 3 ¹ 7 236	32.6 15.7 8.5 38.4 13.0
Except Newspapers Electric Light and Power Wholesale Dry Goods and	265 384	375 412	110 28	41.5 7.3
Apparel Wholesale Electrical Goods Retail-Department Mail Order Grocery Stores Appliance, TV, Radio Stores Liquor Stores Banking Insurance Automobile Repair Physicians Dentists Hospitals Secondary Schools Colleges and Universities Accounting, Auditing Engineering and Architectural	283 185 2,311 2,167 167 232 1,612 942 292 600 345 2,444 606 655 227	355 255 2,885 2,520 225 270 1,925 1,130 370 775 500 2,925 800 750 290	72 70 574 353 58 38 313 188 78 175 155 481 194 95 63	25.4 37.8 24.8 16.3 34.7 16.4 19.4 20.0 26.7 29.2 44.9 19.7 32.0 14.5 27.8
Services	252	295	43	17.1

Source: Occupational Research Department - DES

The largest employment gains will be in the service industry due to the expansion in the medical and educational sectors which are labor-intensive and little affected by labor displacing technological advances.



Table 6

Estimated Decline in Employment for Specific Industries

For the Lawrence -- Haverhill SMSA

			Net	Change
Industry	Emp 1974	oloyment 1985	Amount 1974	Percent Decrease 1985
Dairy Products	264	220	44	16.7
Bakery Products	148	100	148	32.4
Yarn, Thread, and Fabric Mills	185	115	70	37.8
Pulp, Paper, and Paperboard Mills	521	400	121	23.2
Footwear, except Rubber	4,017	2,915	1,102	27.4
Telephone Communication	1,362	1,050	312	22.9
Retail Bakeries	188	165	23	12.2
Fuel and Ice Dealers	297	230	67	22.6
Laundry and Cleaning	626	475	151	24.1

Source: Occupational Research Department - DES



IV. Employment Developments and Outlook by Occupation

Occupations of Applicants and Unfilled Job Openings.
In the Lawrence and Haverhill DES Offices.
In December 1976

Table 7

Occupations	Applicants		Ratio of Applicant to Openings*
Architecture and Engineering Managers and Officials, n.e.c. Misc., Prof., Tech. & Managerial Clerical Sales Domestic Service Service Farming Processing Machine Trades Bench Work Structural Work Motor Freight and Transportation Packaging and Materials Handling Miscellaneous Occupations	390 137 25 967 275 48 799 33 126 503 836 444 217 411 38	232 28 38 127 108 8 196 11 19 159 171 160 17 106	2 5 1 8 3 6 4 3 7 3 5 3 3 1 4 3

Source: ESARS

According to the above chart the occupations where the competition for jobs is the keenest are clerical, processing, and motor freight and transportation.

^{*}Rounded to the nearest whole number.



Table 8

Hourly Wage Rate for Job Openings Received and Filled by Occupational Category for December 1975 and December 1976

	Openings	Received		Openings	Filled	
	December	December 1976	Percent	December	December	percent
	1975	1970	Change	1975	1976	Change
Average Total	2.84	2.95	+ 3.9	2.78	2.83	÷ 1.8
Professional, Technical						
Managerial	4.43	4.79	+ 8.1	4.08	4.48	+ 9.8
Clerical	2.71	2.69	- 0.7	2.67	2.66	- 0.4
Sales	2.51	2.57	+ 2.4	2.61	2.58	- 1.1
Domestic	2.26	2.12	- 6.2	2.55	2.34	- 8.2
Others Service	2.43	2.51	+ 3.3	2.56	2.58	+ 0.8
Farming, Fishing,			• 0	0 =(
Forestry	2.50	2.52	+ 0.8	2.56	2.52	- 1.6
Processing	2.86	2.99	+ 4.5	2.80	3.03	+ 8.2
Machine Trade Bench Work	3.14 2.51	3.23 2.62	+ 2.9	3.13 2.40	3.17 2.57	+ 1.3 + 7.1
Structrual	4.05	3.85	- 4.9	3.88	3.72	- 4.1
Motor, Freight	7.07	3.07		3.00	2.12	
Transportation	2.79	2.92	+ 4.7	2.84	2.90	+ 2.1
Packaging, Material	17				,_	
Handling	2.40	2.59	+ 7.9	2.39	2.64	+10.5
Other	4.10	3.16	-22.9	4.05	3.03	-25.2

Source: ESARS

Athough the inflation rate in the past year has been much greater than 1.8 percent, the hourly wage rate for jobs filled in the Lawrence Job Bank only increased by 1.8 percent. The higher skilled jobs tend to do better than the lower skilled jobs in keeping up with inflation. The small increase in the hourly wage rate over the year in job openings filled and the many occupation which actually had a wage reduction may reflect the fact that applicants, because of poor employment prospects, are forced to accept jobs that pay less than they would accept in better times.



Table 9

Employment Projections for Massachusetts from 1974 to 1985 Occupations with Above Average Annual Growth from 1974 to 1985

	Average	Annual Growth
Occupation	1974 to	1985 1970-74
Engineers, Electrical	148	72
Drafters	169	18
Electrical, Electonic Technician	159	185
Dentists	135	17
Physicians, M.D. Osteopaths	234	55
Registered Nurses	238	613
Therapists	179	
Computer Programers	140	
Computer Systems Analysts	113	_
Elementary School Teacher	161	• •
Editors and Reporters	129	
Operations, Systems Research	146	133
Vocational, Educational Counselors	189	79
Bank Financial Managers	274	256
Buyers, Wholesale, Retail	153	- 45
Sales Manager, Retail Trade	193	156
Health Administrators	101	381
Lawyers	154	259
Sales and Sales Workers, N.E.C.	1,094	- 229
Secretaries, Other	2,202	1,530
Typists	313	-46
Cashiers	228	-804
Expeditors, Product Controllers	128	96
Library Attendants, Assistant	90	- 3
Receptionists	183	- 46 -264
Stock Clerks, Storekeepers	173 265	
Teachers Aides, exc Monitors	474	
Carpenters and Apprentices	236	
Electricians and Apprentices	127	_
Excavating, Grading, Machine Op. Plumbers, Pipefitters and Apprentices	238	-167
Air Conditioner, Heating, Refrig. Mech.		576
Auto. Mechanics and Apprentices	345	140
Radio, Television Repairers	112	- 16
Welders and Flame Cutters	118	
Checkers, Examiners, etc., Mfg.	228	•
Assemblers	231	-
Lodging Quarters, Cleaners	118	- 7
Bldg. Interior Cleaners. N.E.C.	503	+181
Janitors and Sextons	240	- 226
Murses Aides, Orderlies	768	+138
Practical Nurses	970	
Child Care Workers, Exc. Private	311	+87
Police and Detectives	123	·
Const. Labor, exc. Carpenters Helpers	108	
Gardeners, Groundkeeper, exc. Farm	155	+136
,,,,	エノノ	+130



Employment Projections for Massachusetts 1/ from 1974 to 1985

Occupations with Above Average Annual Decrease
from 1974 to 1985

	Average Annual	Decrease
Occupation	1974 to 1985	
College and University Manchens	-210	- 562
College and University Teachers		614
Secondary School Teachers	- 398	
Office Machine Operators	-207	- 127
Keypunch Operators	-282	- 680
Bookkeepers	-117	+ 317
Postal Clerks	- 87	- 234
Telephone Operators	- 266	+ 94
Bakers	- 60	- 75
Semiskilled Metal Working	-132	- 132
Solderers	-102	- 115
Spinners, Twisters, Winders	- 45	- 93
Packer, Wrapper, exc. Meat, Produce	-148	- 340
Clothing Ironers and Pressers	-179	- 366
Sewers and Stitchers	-644	-1,227
Shoemaking Machine Operatives	-184	- 895
Bus Drivers	- 85	+ 329
Barbers	-126	- 272
Firefighters	- 88	395
Guards	- 226	262
Childcare Workers	-241	- 217
•	-245	
Private Households Cleaners, Servants		700
Farmers and Farm Managers	-196	- 121
Farm Laborers, Wage Workers	-190	- 53

Source: Occupational Research Department DES

Although the number of new registered nurses needed is to decline in the next decade the number of nurses aides and orderlies is to increase. After witnessing an excess number of construction workers in recent years, it is interesting to note that in the coming years the demand for construction workers is expected to increase. There will also be an increased demand for auto mechanics, janitors, radio and television repairmen, drafters, and typists. Some of the economically disadvantaged workers of today, if they receive some training, may be able to land jobs in one of the expanding occupations mentioned above. Some of the occupations expected to experience a further decline in the number of openings are bus drivers, guards, and farm laborers.

^{1/} Employment Projections for the Lawrence-Haverhill SMSA are not available at this time but will be available in the near future.



V. Recent Unemployment Trends and Outlook

The annual average estimated number of unemployed persons in the Lawrence-Haverhill SMSA for the year 1976 was 16,300. This was a 1,300 reduction of the 1975 figure of 17,600 unemployed persons. The decrease in unemployment was not the result of improve employment opportunities for employment actually decreased in this time period. Part of the decrease in unemployment was caused by discouraged job seekers leaving the labor force and a slight reduction in new entrants into the labor market.

For fiscal year 1978 there should be a reduction in the number of unemployed persons as a result of a slight improvement in the economy.

Table 11

Additional Unemployment Projections
Fiscal Year 1978

	Unemployment	Unemployment Rate	Long-Term Unemployment	Number of Different Individuals Unemployed During Year
TOTAL	13,404	9.8	4,468	40,212
White Male	7,851	10.3	2,909	
White Female	5,502	9.3	1,485	
Nonwhite Male	25	4.3	INA*	
Nonwhite Female	26	6.4	INA*	

^{*} Figures too small to yield reliable estimates



Industries of Last Attachment
Of the Totally Unemployed
Based on Claims for Total UI Benefits
For December 1976

			Percent of Unemployed
Industry	Number	Percent	Males in Each Industry
TOTAL	3,622	100.0	
Construction	643	17.7	98.8
Manufacturing	973	26.9	51.4
Electrical Machinery Leather	138 207	3.8 5.7	38.4 49.3
Transportation, Communications			0
and Utilities	76	2.1	82.9
Wholesale and Retail Trade	483	13.3	66.7
Finance, Insurance and			
Real Estate	64	1.8	50.0
Services	308	8.5	56.5
Government	585	16.2	19.7
All Others	490	13.5	60.0

Source: DES Tabulation of Benefit Payments



Table 13

Unemployment Composition Projections Lawrence-Haverhill SMSA

Fiscal Year 1978

	Unemployment	Unemployment Rate
TOTAL	13,404	9.8
Male	7,851	10.3
0-15		
16-17	475	15.1
18-19	644	15.5
20-24	1,517	16.1
25-34	1,629	9.3
35-44	1,188	8.3
45-64	1,859	7.5
65+	239	18.4
Female	5,502	9.3
0-15		
16-17	577	14.5
18-19	325	8.9
20-24	919	11.4
25-34	856	7.3
35-44	650	7.1
45-64	1,805	8.9
65+	390	14.1

It is interesting to note that the projected unemployment rate for young males is higher than any other age category except for males 65 years or older.

-18-



RESEARCH & INFORMATION SERVICE MASSACHUSETTS DIVISION OF EMPLOYMENT SECURITY PREPARED BY:

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30HE 109100 6700 115800 5.8	101400 11000 112400 9.8	110400 7500 117900 6.4	114500 8400 122900 6.8	118900 8700 127600 6.8	116100 - 20900 137000 15.3	114600 17100 131700 13.0
MAY. 108400 5200 113600	102600 9700 112300 8.6	107700 7600 115300 6.6	113900 7300 121200 	118900 7500 - 126400 5.9	115700 - 18000 133700 13.5	114500— 16100 130600 12.3
APR 108200 113200 14.4	103600 8700 112300 7.7	107900 8900 116800 7.6	114000 8000 122000	118100 8500 126600	115400 16900 132300 12.8	112800 16800 129600 13.0
MAR 104500 5100 109600	102000 9100 111100 8.2	105800 10400 116200 9.0	112200 8300 120500	116900 9300 126200	115600 16900 132500	113200 18600 131800 14.1
FEB 5000 110500 4.5	100800 8800 109600 8.0	105200 9500 114700 8.3	111600 8600 120200 7.2	116200 9800 126000	115500 16100 131600 12.2	112300 19500 131800
JAN 104500 4400 108900	100900 9000 109900 8.2	103500 9800 113300	110300 8900 119200	115800 10600 126400	115800 14400 130200 11.1	111400 19800 131200 15.1
EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	1971 FMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	1973 EMPLOY UNEMPLOY LABOR FORCE	EMPLOY UNEMPLOY LABOR-FORCE UNEMP RATE	EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE	1976 EMPLOY UNEMPLOY LABOR FORCE UNEMP RATE



VI. Individuals in Need of Manpower Services Table 15

Comparision of Characteristics In the Lawrence and Haverhill DES Offices In December 1974, December 1975 and December 1976

	SEX				
	Percent	tage of 1975			
	11974	1975	1976		
TOTAL	100.0	100.0	100.0		
Male Female	55.4 44.6	51.8 48.2	49.4 50.6		

In the past three years the percentage of female applicants have grown.

	A	G E	
	Percen 1974	tage of 1975	Total 1976
TOTAL	100.0	100.0	100.0
Under 20 20-24 25-29 30-44 45-65	16.0 25.0 17.0 24.1 16.3	12.9 23.8 17.6 26.3 17.6	13.4 23.2 17.4 29.3 15.9
65+ over	1.6	1.8	0.8

The percentage of the 30 to 44 year old group has grown.

(tables continued on following page)



		st Schoo	
	Percent	age of T	otal
	1974	1975	1976
TOTAL	100.0	100.0	100.0
0 - 7	6.2	5.9	5.9
8 - 11	37.6	33.4	36.5
12	37.1	39.7	39.2
Over 12	19.1	21.0	18.4

As a result of the recession in 1975, the percentage of applicants with high school or better grew.

		Ethnic Group				
		Percentage of Total 1974 1975 1976				
	TOTAL	100.0	100.0	100.0		
White Black Other Spanish A	merican	96.9 2.5 0.6 8.5	97.1 2.1 0.8 7.3	96.7 2.8 0.5 8.8		

The 1975 recession increased the percentage of white applicants but in 1976 the percentage of blacks and Spanish Americans advanced.

	Veterans				
	Percer	ntage of	Total		
	1974	1975	1976		
Recently Separated Disabled Vietnam era Others	5.3	4.1	4.7		
	1.3	1.3	1.4		
	9.7	8.9	10.6		
	2.3	3.8	4.0		



According to the preceding tables, the recession of 1975 resulted in a slightly higher percentage of white, older, and better educated applicants that were seeking aid in finding employment. However, in 1976 the percentage of the above mentioned categories of applicants began to shrink and the trend appears to be back to a more traditional mix of applicants in which the undereducated and minorities have a larger share of the total than they did in 1975.

B. Barriers to Employment of the Economically Disadvantaged

One of the greatest barriers to employment of disadvantaged workers in the Lawrence-Haverhill SMSA is lack of knowledge of the English language-a real problem for the Spanish-speaking group who have recently migrated into the area. Another barrier to the disadvantaged is that they usually lack private transportation and the limited public transportation makes going to and from many job locations difficult if not impossible.

Many older workers with limited education are finding this to be a draw-back in seeking better-paying jobs in order to maintain or better their present standard of living. Older workers displaced from the textile and leather products industries find that, although they are experts in their former jobs their skills have become obsolete in factories using new types of machinery or that their skills are not applicable to the requirements of other industries.

Two barriers to enrollees in the WIN (Work Incentive) program are the lack of sufficient day-care centers for the children of families headed by women and the lack of inexpensive and timely public transportation to and from work locations.



Table 16

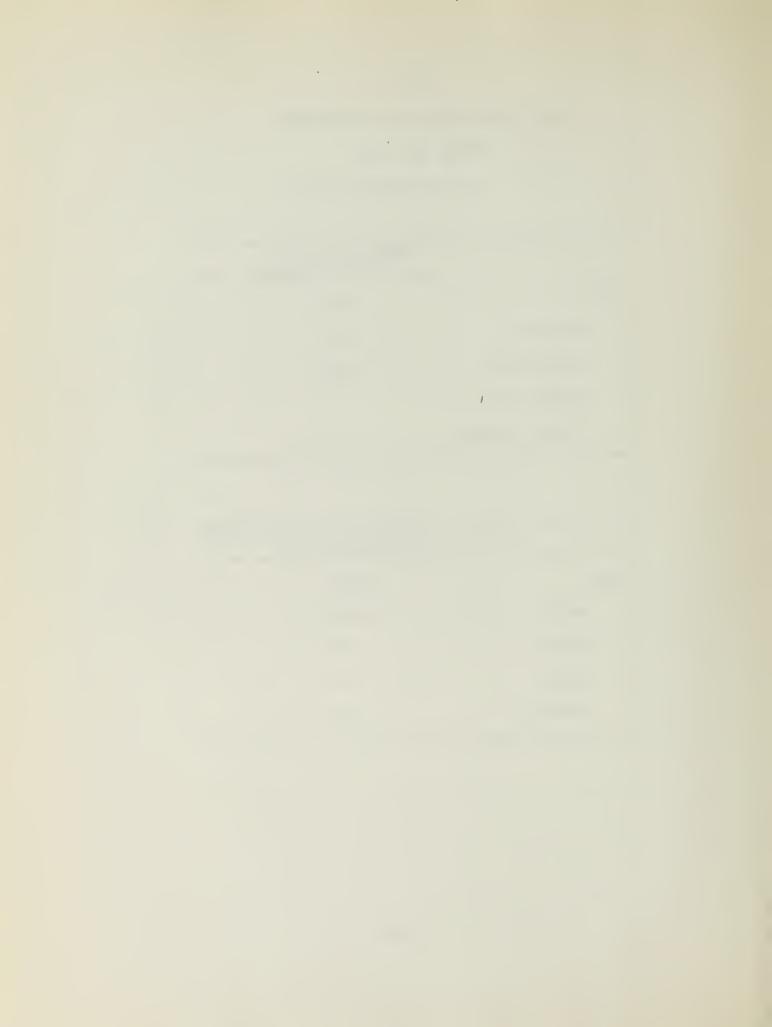
ADDITIONAL PLANNING DATA PROJECTIONS

FISCAL YEAR -1978

Lawrence-Haverhill SMSA

	Employed Part-Time for Economic Reasons
TOTAL	5,801
White Male	2,876
White Female	2,858
Nonwhite Male	34
Nonwhite Female	33

	Economically Disadvantaged 18 Years and Over
TOTAL	16,381
White	16,218
Black	145
Other	18
Spanish	720



VII. Labor Supply/Demand Imbalances

At the end of December 1976 there were 6,011 job seekers registered in the Lawrence and Haverhill Division of Employment Security offices and at the same time there were 556 unfilled job openings listed in the Lawrence Job Bank. It is obvious from the above figures that there is an excess of labor supply for it averages out that for every job opening there are more than ten applicants.

Selected Occupations in the Lawrence-Haverhill SMSA
In Which the Ratio of the Number of Applicants to the
Number of Unfilled Job Openings* is Not Favorable

Table 17

Occupations	Nunber of Applicants	Unfilled Job Openings	Ratio of Applicants to a Job Opening 1	Major Characteristics of the Applicant
Psychology Industrial Engineering	19 20	1	19 20	47% females 60% 45 years or older
Primary School and Kinder garten Education Guards	17 35	1 0	17	65% females 26% economically disadvantaged
Manufacturing Industry Management Transp., Comm., & Util.	14 13	0	13	86% males 46% 45 years or older
Bookkeeping-Machine Work Computing & Account Rec. Stock Checking Reception & Information	18 164 60	0 6 2	27 30	94% females 95% females 10% minority
Dispensing Attendent Work	33 152	O 4	38	100% females 16% under 22 years old
Cooking & Baking Casting & Molding	10 11	0	11	100% males 82% economically disadvantaged
Metal Machining Fabrication & Repair of	17	1	17	94% males
Footwear Building Wiring Assembly	223 18	5 0	45 	29% minority 100% males

(table continued on following page)



Table 18

Selected Occupations in the Lawrence-Haverhill SMSA
In Which the Ratio of the Number of Applicants to the
Number of Unfilled Job Openings* is the Most Favorable

Occupations	Number of Applicants	Unfilled Job Openings	Ratio of Applicants to a Job Opening 1/
Electrical Engineering	30	10	3
Nursing	13	16	1
College and University Education	0	14	
Writing	4	2	2
Social and Welfare Work	15	11	1
Saleswork, Textiles	18	3	6
Miscellaneous Machine Installation	23	4	6
Weatherstrip-Machine Operator	72	37	2
Sheet Metal Work	8	7	1
Miscellaneous Construction	14	14	1
Maintenance Management Buildings	31	14	2

^{*} Unfilled Job Openings = Those listed in the Lawrence DES Job Bank

Source: ESARS and the Lawrence Job Bank

^{1/} Rounded to the nearest whole number



Table 18a

Selected Occupations in the Lawrence-Haverhill SMSA

In Which

The Ratio of the Number of Applicants to the
Number of Unfilled Job Openings* is not Favorable

Occupations	Number of Applicants	Unfilled Job Openings	Ratio of Applicants to a Job Opening 1/	Major Characteristics of the Applicant
Construction and Maintenance Painting	39	3	13	56 % veterans
Carpentry and Related Work	84	1	84	100% males
Plumbing, Gas and Steam Fitting	16	1	16	44% - 45 years and older
Light Truck Driving	50	0		52% veterans

Source: ESARS and the Lawrence Job Bank

The above table shows the extent of competition for jobs in certain occupations and some of the characteristics of those who are competing to land those jobs.

^{*} Unfilled Job Openings -- Those listed in the Lawrence DES Job Bank

^{1/} Rounded to the nearest whole number.



Job Openings Unfilled 30 Days or More
July 30, 1976

	Number of	Median	Experience	Years of
	Unfilled	1	Required	
Occupation	Openings	Wage Rate	In Months	Schooling
Occupation	Openings	Nace	TH MOHORS	Required
Electronics Technician	1	\$4.33	24 - 35	13-14
Engineering Aide	3	\$4.81	12-23	15-16
Counselor	17	\$3.50	12-23	15-16
Head Nurse		\$4.62	24-35	15-16
Registered Nurse	2 3 1 4	\$4.80	24 - 35	15-16
Job Training Coordinator	1	\$4.50	12-23	15-16
Recreation Therapist	1,	\$3.46	12-23	13-14
Licensed Practical Nurse	4			
	6	\$3.66	12-23	14-15
Assistant Job Developer		\$3.93	12-23	15-16
Caseworker	15	\$4.31	24-35	12
Planner	1	\$6.63	36 or	
		41 60	more	15-16
Planning Assistant	1	\$4.38	12-23	13-14
Secretary	1	\$3.46	24 - 35	12
Technical Typist	8	\$3.25	12-23	12
Clerk-Typist	8 2 4	\$3.32	12-23	12
Key Punch Operator		\$2.50	12-23	12
Sales Clerk	7	\$2.30	Less than	
			12 months	4
Day Worker	2	\$2.30	Less than	
			12 months	4
Cook, Short Order	1	\$2.60	12-23	12
Inst. Domestic Worker	3	\$2.95	12-23	12
Teacher Aide	3 5	\$2.50	Less than	
		7	12 months	12
Sanitation Supervisor	2	\$3.83	Less than	
	_	434-3	12 months	4
Fish Cutter	4	\$4.50	36 or more	4
Mold Maker	i	\$4.75	36 or more	4
Slasher Tender	3	\$3.00	Less than	7
Diasilei Tendei	3	φ3.00	12 months	14
Slasher Tender Helper	1	\$3.02	12-23	h h
				4
Machinist	1	\$4.50	36 months	1.
		40.50	or more	4
Wheel Alignment Mechanic	1	\$3.50	12-23	12
Truck Mechanic	1	\$3.00	24-35	12
Automated Equip. Engineer	1	\$4.50	36 or more	7
Warp Rigger	2	\$2.89	12-23	14
Drawing In Machine Worker	2	\$3.42		14
Cloth Inspector	1	\$2.80	12-23	14

(Table continued on following page)



Job Openings Unfilled 30 Days or More July 30, 1976

(continued)

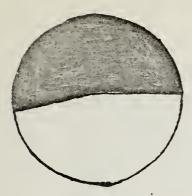
	1 37 2	he 21	177	1 12
	Number of	Median	Experience	Years of
	Unfilled	Wage	Required	Schooling
Occupation	Openings	Rate	in Months	Required
Braider Operator	9	\$2.87	12-23	4
Cloth Doffer	1	\$3.09	12-23	4
Creeler	4	\$2.77	12-23	4
Arch-Cushion Skinning		·		
Machine Operator	6	\$3.00	24-35	4
Radio Repair Person	1 1	\$3.50	12-23	12
Knotter	1 '	\$3.27	12-23	4
Stitcher Garment	3	\$2.50	12-23	4
Stitcher Nongarment	18	\$3.00	Less than	
			12 months	4
Layout Worker Structural	1	\$3.00	12-23	12
Steel				1
Carpenter	6	\$4.38	12-23	4
Laborer	7	\$3.94		4
Silk Screen Printer	1	\$2.30	Lėss than	
			12 months	12

Source: Lawrence Job Bank

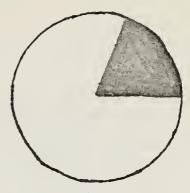
The pay scales for many of the above jobs may have been inadequate in relation to the amount of education and/or experience required by these jobs. This may have caused some of the jobs to be unattractive or unacceptable to qualified applicants.



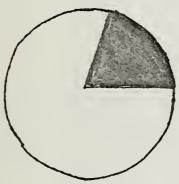
Applicants Seeking Aid In Finding Employment In the Lawrence and Haverhill DES Offices



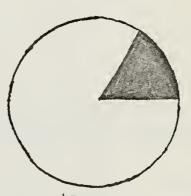
Females
53.9 percent



Veterans 18.9 percent



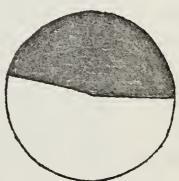
Under 22 Years Old 20.3 percent



45 Years or Older 16.7 percent



Minority
11.9 percent



Economically Disadvantaged 46.7 percent



VIII. Training Programs

CETA: The Comprehensive Employment and Training Act of 1973 provides job training and employment opportunities for economically disadvantaged, unemployed and underemployed persons and assumes that training and other services lead to maximum employment opportunities which will enhance self-sufficiency. CETA offers a number of types of opportunities under Title I, Title II and Title VI of the act. Title I is that portion of the act devoted to jobs, work experience, or classroom training. Title II and VI are emergency public service employment functions of the act, Title II being somewhat stricter in that the community using Title II funds is thereby pledged to continue a certain percentage of the jobs on a permanent basis and participants are eligible for the same job benefits accorded regular employees.

Table 20
Characteristics of Enrollees
In the Lawrence CETA Program
September 1976 to December 1976

	Title		Title		Title	
	I	Percentage	II	Percentage	VI	Percentage
Total	669		738		713	
Male	364	54.4	544	73.7	557	78.1
Female	305	45.6	194	26.3	156	21.9
18 and under	266	39.7	20	2.7	20	2.8
19 - 44 years old	361	54.0	603	81.7	581	81.5
45 and over years old	42	6.3	115	15.6	112	15.7
0 - 8 years of school	149	22.3	74	10.0	83	11.6
9 - 11 years of school	343	51.3	195	26.4	215	30.2
High School Graduate	154	23.0	259	35.1	262	36.7
Post High School	23	3.4	210	28.5	153	21.5
Spanish American	160	24.0	65	8.8	65	9.1
AFDC	254	38.0	141	19.1	118	16.5

Source: CETA Program Status Summary

The above table shows that the characteristics of the average enrollee in Title I is somewhat different then the average enrollee in Title II or Title VI, Title I has a high percentage of enrollees that are; women, under 18 years old, nonhighschool graduates, Spanish Americans, and in the AFDC (Aid to Families, with Dependent Children) program.



Table 21

Wages of CETA Participants Before Participation and Upon Entering Employment

	CETA I	I	CETA II	II	CETA VI	VI
Wages Per Hour	Before Participation	Upon Entering Employment	Before Participation	Upon Entering Employment	Before Participation	Upon Entering Employment
Less than \$1.00	Ţ	0	E	0	Э	0
\$1.00 - \$1.99	32	0	31	0	28	0
\$2.00 - \$2.99	287	50	544	7	245	7
\$3.00 - \$3.99	96	99	256	#	544	5
66°4\$ - 00°4\$	28	100	103	2	95	Н
\$5.00 - \$5.99	9	100	54	ч	54	0
\$6.00 or More	9	0	38	Н	35	н

Source: CETA Program Status Summary

CETA I program, usually are hired at a higher wage rate then they were paid at their therefore, many are still in the programs and have not entered employment. Thus the evidence is insufficient to draw any conclusions about CETA II and CETA VI but The applicants in the above chart have entered the programs since September 1976; the chart shows that persons that have found employment after participating in former jobs.



WIN: The Work Incentive Program was enacted to aid recipients of Aid to Families with Dependent Children to obtain gainful employment or training that would lead to gainful employment. In the Lawrence-Haverhill SMSA there are two WIN teams in operation - one in the Lawrence Office area, and one in the Haverhill Office area.

Table 22

Characteristics of Applicants in WIN from

September 1, 1976 to November 30, 1976

	Lawrence Applicants	Percentage	Haverhill Applicants	Percentage
Total	1,205		1,331	
Female	989	82.1	1,035	77.8
Under 22	140	11.6	191	14.4
12 or more years of Schooling	476	39•5	565	42.5
Spanish American	271	22.5	47	3.5
Veterans	72	6.0	119	8.9
Vietnam Veterans	32	2.7	59	4.4
45 Years or Older	231	19.2	146	11.0
Disadvantaged	1,204	99•9	1,325	99.6

Source: ESARS

The higher percentage of Spanish Americans in the Lawrence WIN office is the result of a heavier concentration of Spanish Americans in the City of Lawrence than in the City of Haverhill.

Presently the Haverhill WIN office has 71 enrollees in institutional training and 19 in on the job training The Lawrence WIN office has 24 enrollees in institutional training and 13 in on-the-job training. The reason why the Haverhill WIN office has a greater number of persons in institutional training is that Haverhill has a community college where the enrolles can prepare themselves for the high school equivalency test, as many jobs now



require a high school diploma. Although both Lawrence and Haverhill WIN teams have people receiving classroom instruction and on-the-job training the emphasis this year is to place enrollees into jobs rather than stress the upgrading of their job skills.

From October 1, 1976 to December 31, 1976, 79 enrollees in the Haverhill WIN office entered full time employment and 14 entered part time employment. The WIN office made 17 of these placements. In the same time period 76 enrollees in the Lawrence WIN office entered full time employment and 26 enrollees part time employment. The WIN office made 29 of these placements.

The employment offices had the most success in filling job openings for the following occupations: clerical, services, motor freight, transportation, packaging and material handling. They had the least success in professional, technical, managerial and sales.

Job Openings Received and Filled in the Lawrence and Haverhill Employment Office Since September 1, 1976 to December 30, 1976

			Ratio of Openings
Occupations	Openings Received	Openings Filled	Openings Filled
Total	1,735	1,124	1.5
Professional, Technical Managerial	183	62	2.9
Clerical	301	223	1.3
Sales	194	85	2.3
Domestics	13	9	1.4
Other Services	241	186	1.3
Processing	50	32	1.6
Machine Trades	146	90	1.6
Benchwork	258	186	1.4
Structural	84	57	1.5
Motor Freight,			
Transportation	1474	34	1.3
Packaging & Materials		_	_
Handling	205	153	1.3
Other	บ้	7	1.6

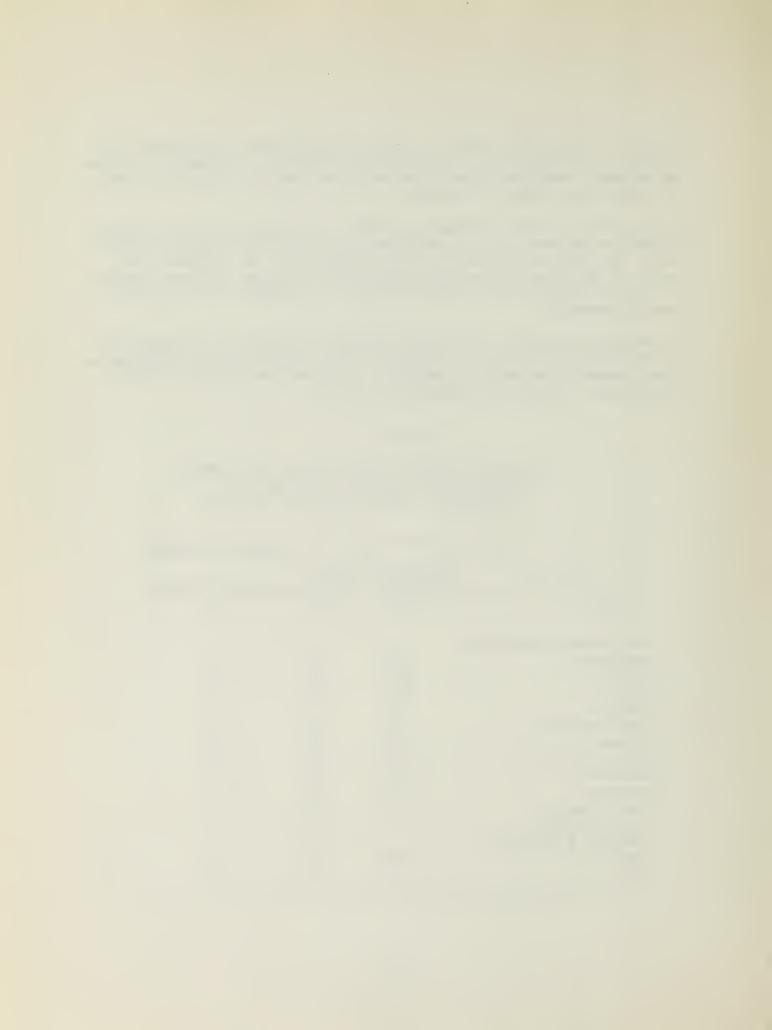


Table 24

Average Wage for Job Openings Received and
Filled In the Lawrence Job Bank

Occupations	Average Wage for Openings Received	Average Wage for Openings Filled
Total	\$2.95	\$2.83
Professional, Technical Managerial	4.79	4.48
Clerical	2.69	2.66
Sales	2.57	2.58
Domestic	2,12	2.34
Other Services	2.51	2.58
Processing	2.99	3.03
Machine Trades	3•23	3.17
Bench Work	2.62	2.57
Structural	3.85	3.72
Motor, Freight, Transporta	tion 2.92	2.90
Packaging Material Handlin	g 2.59	2.64
Other	3.16	3.03

Source: ESARS

A person receiving \$2.83 an hour working 40 hours a week would receive \$113.20 a week.





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ANNUAL PLANNING

LAWRENCE HAVERHILL

JOHN F. HODGMAN, DIRECTOR, AFFILIATED WITH

OF MASS/ANNEST LIDIANY

OF MASS/AN



ANNUAL PLANNING INFORMATION REPORT FISCAL YEAR 1979

LAWRENCE-HAVERHILL, MASSACHUSETTS STANDARD METROPOLITAN STATISTICAL AREA

Prepared by: Allan MacDonald

Senior Labor Market Economist Labor Area Research Department

Massachusetts Division of

Employment Security

Charles F. Hurley Building

Government Center

Boston, Massachusetts 02114

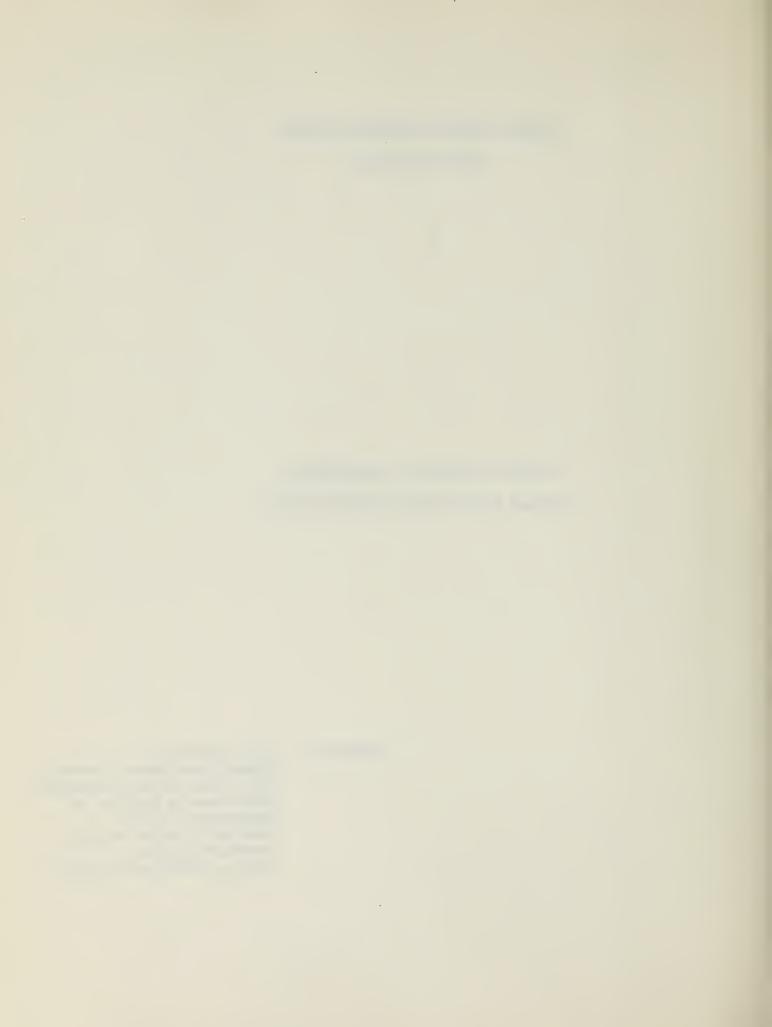


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PREFACE

The Annual Planning Information Report (APIR) is an analytical and statistical report which summarizes employment developments and problems in specific labor areas. The report covers developments for the area as a whole, and for specific sections within the area where manpower and unemployment problems are concentrated.

The APIR is intended for public distribution to manpower and community planners, educators, local and state officials, business, labor, and community leaders who need accurate and timely labor market information for planning purposes.

Data and analyses contained in the Annual Planning Information Report aid in carrying out local, state, regional, and national office responsibilities; also, manpower utilization programs, and Federal efforts to alleviate local unemployment.



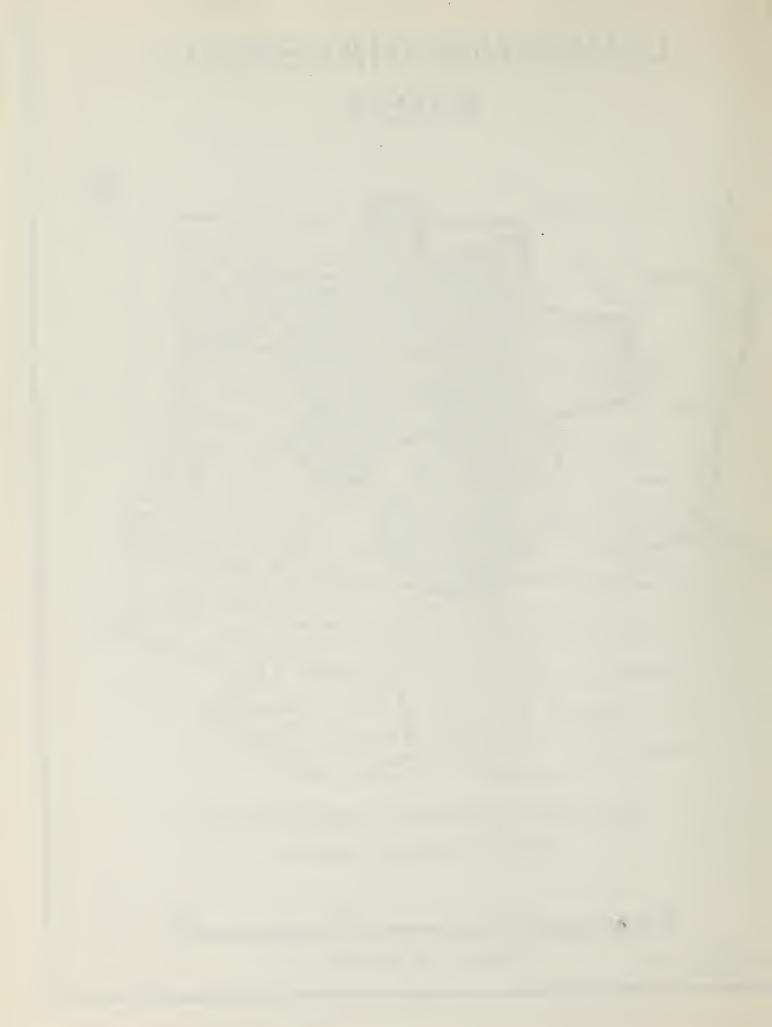
LAWRENCE-HAVERHILL SMSA



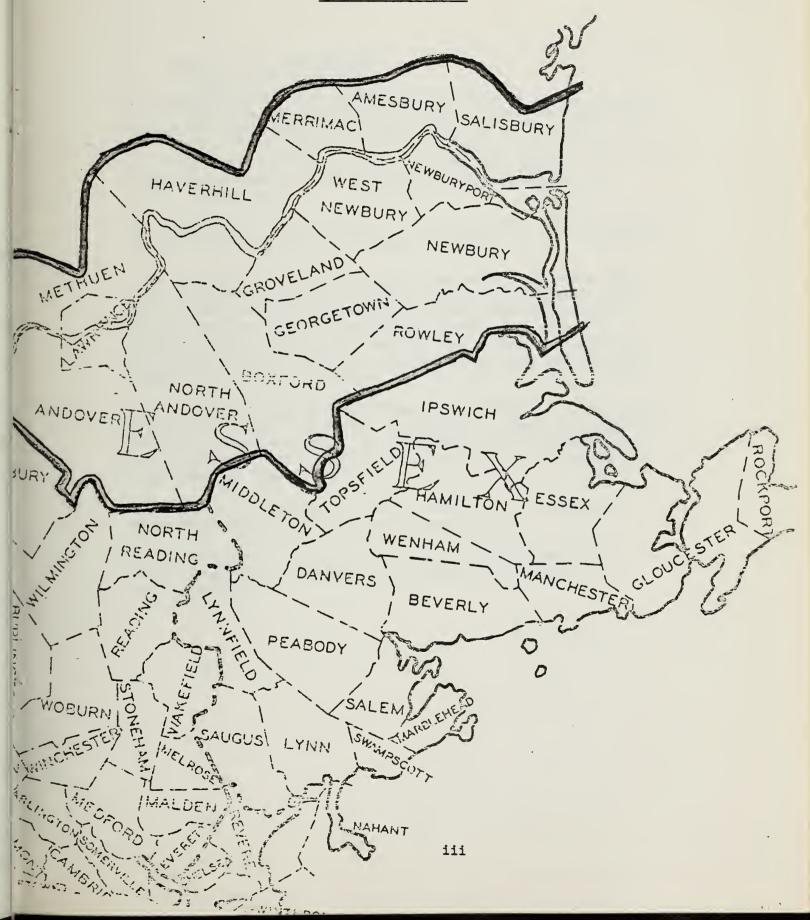
MASSACHUSETTS DEPARTMENT OF COMMUNITY AFFAIRS
BUREAU OF REGIONAL PLANNING



J. S. Office of Mgmt & Budget 27 April 1973 SCALE IN MILES



LAWRENCE CETA AREA





I. Highlights and Conclusions

The population in the Lawrence-Haverhill SMSA is estimated to be 6.4 percent greater in 1979 than it was in 1970. In this time period, the population for the State grew by 3.0 percent.

In recent years the labor force has grown as a result of a higher percentage of women and teenagers either working or seeking employment.

The unemployment rate decreased over the year and it is expected to decline even more as the economy improves.

Some of the occupations that have an excess of applicants are: service industry managers, wholesale and retail managers, payroll clerks, shipping and receiving clerks, cosmetologists, leather workers, and trailer truck drivers. Some of the occupations where applicants had the best chance of finding a job are: electrical engineer, mechanical engineer, social caseworker, bank teller, and guard.

The year 1977 was an important year for the SMSA. During that year durable goods began adding workers to its payrolls which was the first time since 1974. The vanguard in this expansion was electrical machinery. Durable goods employment is expected to keep expanding through 1978.

Employment in construction, health, restaurants, and clerical occupations will grow in the next seven years.

It has been projected that for fiscal year 1978 there will be 20,524 economically disadvantaged persons in the Lawrence-Haverhill SMSA.



II. Description of Area

a. Definition of the Area-Location and Geographical Features

The Lawrence-Haverhill, Massachusetts-N.H. SMSA is located in northeastern Massachusetts and southeastern New Hampshire. It includes the cities of Lawrence and Haverhill; the towns of Amesbury, Georgetown, Groveland, Merrimac, Methuen, North Andover, Salisbury, and West Newbury in Massachusetts; and the towns of Atkinson, Hampshead, Kingston, Newton, Plaistow, Salem and Windham in New Hampshire.

The Lawrence CETA area includes the cities of Lawrence and Haverhill; the towns of Amesbury, Andover, Boxford, Georgetown, Groveland, Newbury, Newburyport, North Andover, Methuen, Merrimac, Rowley, Salisbury, and West Newbury.

b. Population and Labor Force Characteristics and Trends

According to population projections in 1979 the Lawrence-Haverhill SMSA population will be 6.4 percent greater than it was in 1970. Much of this growth is expected to take place in the New Hampshire towns that are part of the SMSA and in some of the towns in the Massachusetts portion such as Amesbury, Andover, Georgetown, and West Newbury. The population in the city of Lawrence should grow slightly as the result of a large influx of Spanish Americans into that city. In this time period the population of Massachusetts is expected to grow by 3.0 percent.

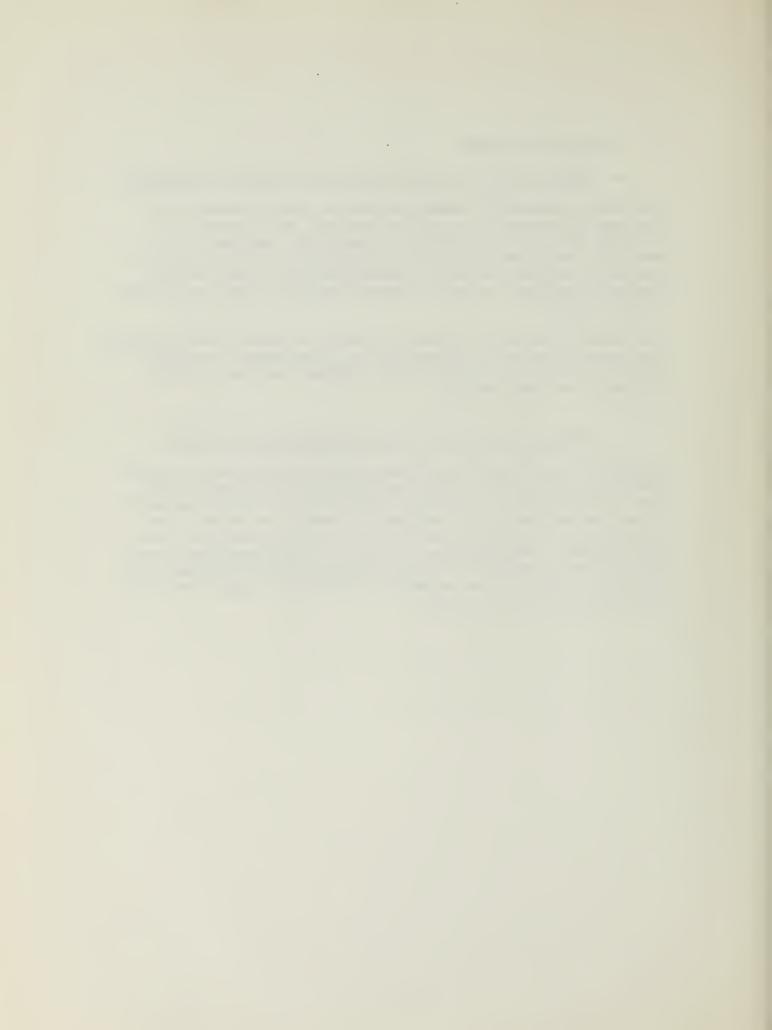
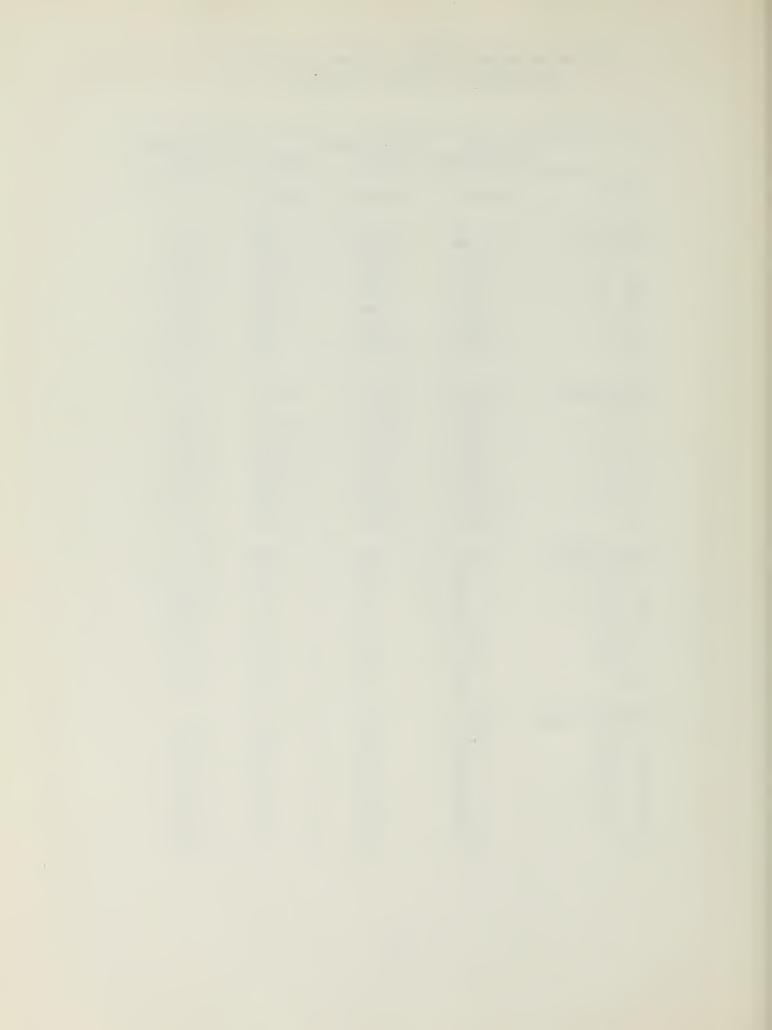


Table
Population Composition for 1970 and Population
Projections for Fiscal Year 1979

	1070	Designation		D
	1970 Population	Projected 1979	Change	Percentage
	[FODULACION]	1919	020100	Change
TOTAL	258,876	275,555	16,679	+ 6.4
White Male 0 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 44 45 - 64 65+	122,875 37,349 11,081 7,922 7,855 6,509 14,014 26,422 11,723	130,798 36,907 12,592 10,179 8,447 9,048 14,321 27,352 11,952	+ 7,923 - 442 + 1,511 + 2,257 + 592 + 2,539 + 307 + 930 + 229	+ 6.4 - 1.2 + 13.6 + 28.5 + 7.5 + 39.0 + 2.2 + 3.5 + 2.0
White Female 0 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 44 45 - 64 65+	133,812 35,803 11,003 9,668 8,321 6,756 14,178 29,564 18,519	142,311 35,061 12,708 11,019 10,300 9,357 14,033 30,626 19,207	+ 8,499 - 742 + 1,705 + 1,351 + 1,979 + 2,601 - 145 + 1,062 + 688	+ 6.4 - 2.1 + 15.5 + 14.0 + 23.8 + 38.5 - 1.0 + 3.6 + 3.7
Nonwhite Male 0 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 44 45 - 64 65+	1,050 410 73 34 52 139 121 125 96	1,172 439 118 68 37 60 220 155 75	+ 122 + 29 + 45 + 34 - 15 - 79 + 99 + 30 - 21	+ 11.6 + 7.1 + 61.6 +100.0 - 28.8 - 56.8 + 81.8 + 3.0 - 21.9
Nonwhite Female 0 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 44 45 - 64 65+	1,139 392 63 100 65 118 138 151	1,274 439 101 63 107 73 222 156 113	+ 135 + 47 + 38 - 37 + 42 - 45 + 84 + 5 + 1	11.9 + 12.0 + 60.3 - 37.0 + 64.6 - 61.9 + 60.9 + 03.3 + 0.9



The declining birth rate in recent years accounts for the reduction in the number of 0-14 year old age group since 1970. The increase in the 15-24 year group was partly the result of many families with young children moving into the area in the 1960's and the high birth rate in the 1950's. The growth in the 30-34 year group was caused by migration into the area and the post war high birth rate in the late 1940's.

Table 2
Labor Force Participation Rates
1970 and 1979

	1	cipation ce - 1970	1	cipation - 1979
	White	Nonwhite	White	Nonwhite
Male 16 - 17 18 - 19 20 - 24 25 - 34 35 - 44 45 - 64 65+	44.3 67.2 85.7 97.2 97.7 91.2 27.2	19.5 50.0 88.2 94.8 90.9 95.2 38.5	60.7 81.0 90.7 97.4 96.9 88.3 22.2	26.2 54.0 91.6 94.9 94.3 89.2 32.1
Female 16 - 17 18 - 19 20 - 24 25 - 34 35 - 44 45 - 64 65+	43.5 56.4 60.6 45.6 56.7 63.4 12.1	17.6 56.0 69.0 39.9 63.0 45.7 12.5	77.8 71.4 71.7 59.4 66.1 65.3 9.9	29.6 63.7 71.5 45.3 66.0 45.3 10.8



From 1970 to 1979 the labor force participation rate increased substantially for females and teenagers. Inflation appears to have forced many secondary workers (females and teenagers) into the labor market since many primary workers' wages have not kept pace with inflation. For males 45 years old and older there has been a slight decline in the participation rate. The reason for that drop is that more males are retiring at an earlier age than ever before. There has been an increase in the rate for all female age groups except for the 65 years old and over and for the nonwhite females in the 45 and over age group.

Table 3
Labor Force Composition For 1970
and
Labor Force Projections for Fiscal Year 1979

	Labor	Force	Percentage
	1970	1979	Increase
TOTAL	113,248	133,383	+17.8
White Male	66,315	74,880	+12.9
White Female	46,114	57,524	+24.7
Nonwhite Male	490	590	+20.4
Nonwhite Femal	e 329	389	+18.2



The greater percentage in females over males was the result of the female participation rate increasing at a faster rate than the males. Much of the growth in the labor force was the result of an increase in the labor force participation rate rather than an increase in population.

III. Unemployment: Trends and Characteristics

The estimated annual average number of unemployed persons in the Lawrence-Haverhill SMSA for the year 1977 was 12,694 or 9.7 percent of the labor force. For the preceding year, 1976, the number of unemployed was 15,560 or 11.9 percent of the labor force. In this time period the Massachusetts unemployment rate declined by 1.4 (9.5 to 8.1), the nation's rate decreased by 0.7 (7.7 to 7.0), while Lawrence-Haverhill's rate dropped by 2.2 (11.9 to 9.7). The main reason why the Lawrence-Haverhill unemployment rate had the greatest descent was that durable goods employment grew at a faster pace in Lawrence-Haverhill then it grew in either the state or the country.

Table 4
Additional Unemployment Projections
Fiscal Year 1979

	Unemployment	Unemployment Rate	Long-Term Unemployment	No. of Different Individuals Unemployed During the Year
TOTAL	11,336	8.5	3,665	47,044
White Male White Female Nonwhite Male Nonwhite Female	6,514 4,775 22 25	8.9 8.8 4.0 6.4	2,356 1,309 INA* INA*	

^{*} Figures too small to yield reliable estimates.

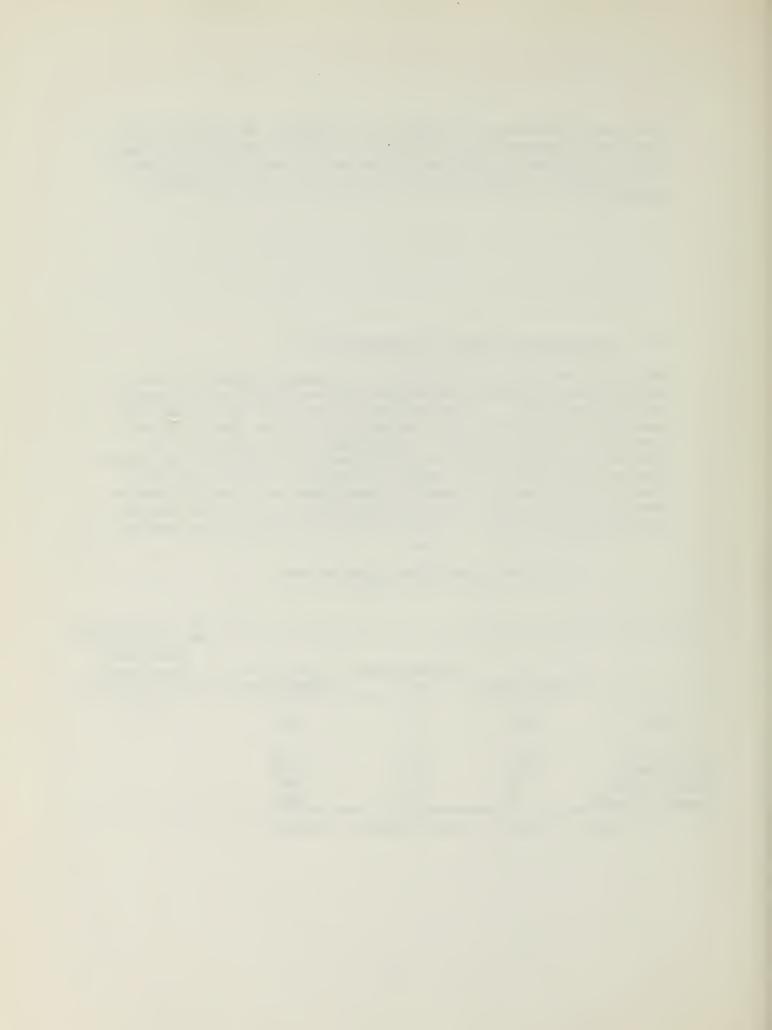


Table 5

Additional Unemployment Projections
For
Fiscal Year 1979 and Unemployment in 1970

	1970 Unemployment	Rate	1979 Unemployment	Rate
White Male	2,457	4.1	6,515	8.8
16 - 17	176	8.8	455	14.9
18 - 19	169	7.9	561	13.8
20 - 24	417	6.9	1,209	13.1
25 - 34	412	3.3	1,388	8.1
35 - 44	375	3.1	931	6.7
45 - 64	661	3.0	1,510	6.3
65+	247	8.6	461	17.4
White Female	1,746	4.2	4,776	8.2
16 - 17	148	8.5	535	13.5
18 - 19	109	4.8	297	8.2
20 - 24	276	5.2	817	10.3
25 - 34	204	3.3	744	6.4
35 - 44	245	3.4	566	6.1
45 - 64	635	3.7	1,553	7.8
65+	12 9	6.4	264	13.8

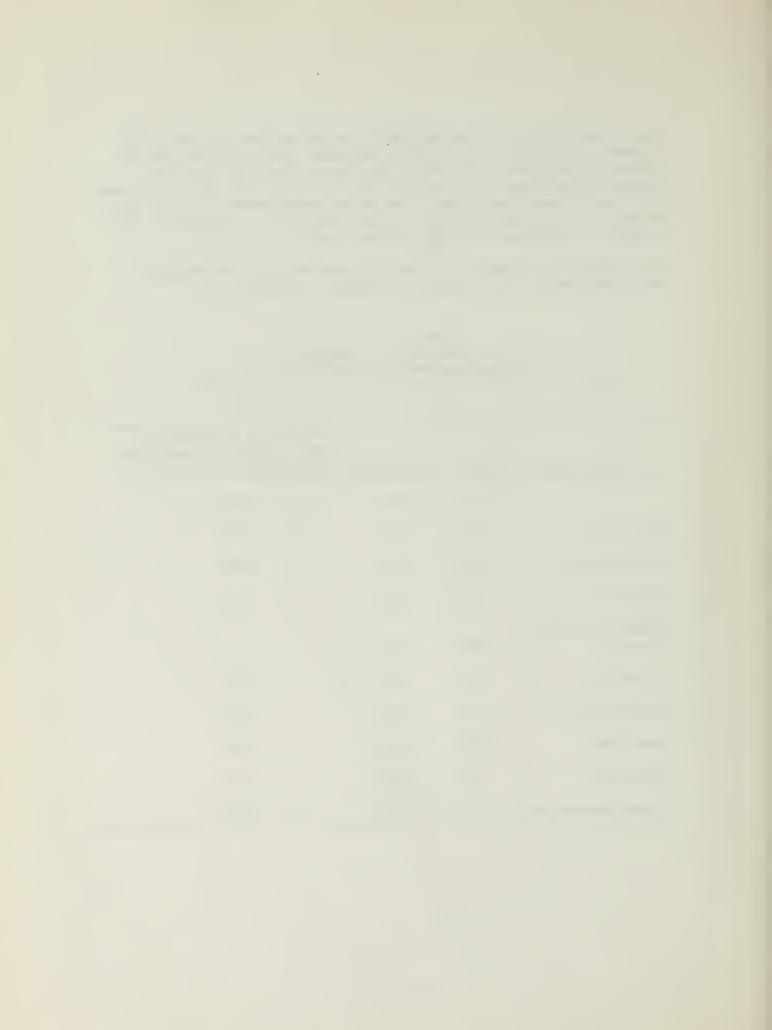


For fiscal year 1979, the age groups for males that will have the highest unemployment rate will be teenagers and those that are 65 years old and older. The female age groups that will have the highest unemployment rate are the 16 to 17 years old, the 20-24 years old, and 65 years and older. The higher unemployment rate for teenagers in 1979 compared to 1970 is the result of an increase in the number of teenagers entering the labor force.

The growth in the number of jobs for teenagers did not keep pace with the growth in the number of teenagers seeking jobs.

Table 6
Survey on the Insured Unemployed
In the Lawrence-Haverhill DES Offfices
During the Period of December 1977 and January 1978

			Percentage of Clamiants That Have Been Unemployed
Occupation	Total	Percentage	Longer Than 19 Weeks
	4,605	100.0	19.4
Prof., Tech., Mgt.	457	9•9	31.4
Clerical Sales	846	18.4	28.0
Services	403	8.8	26.4
Farming, Fishing, Forestry	108	2.3	7.4
Processing	90	1.9	2 3.3
Machine Trades	507	11.0	11.6
Bench Work	529	11.5	17.4
Structural	700	15.2	12.3
Miscellaneous Work	965	21.0	14.1



The occupations that have the highest percentage of claimants that were unemployed longer than 19 weeks were: professional, technical and managerial, clerical sales, services, and processing. Many of unemployed in the professional, technical, and managerial are older male workers. These workers tend to have a longer duration of unemployment than some other age groups. Many workers in clerical, sales, services, and processing are women and women tend to have longer duration of unemployment than men.

Table 7
Survey on the Insured Unemployed
In the Lawrence-Haverhill DES Offices
During the Period of December 1977 and January 1978

Total	Percentage of Claimants That Have Been Unemployed Longer Than 19 Weeks
Manufacturing	17.9
Construction	3.0
Transportation/Utilities	7.6
Wholesale & Retail Trade	19.1
Finance, Insurance, Real Estate	38.3
Services	31.5
Others	2.5
INA	10.5

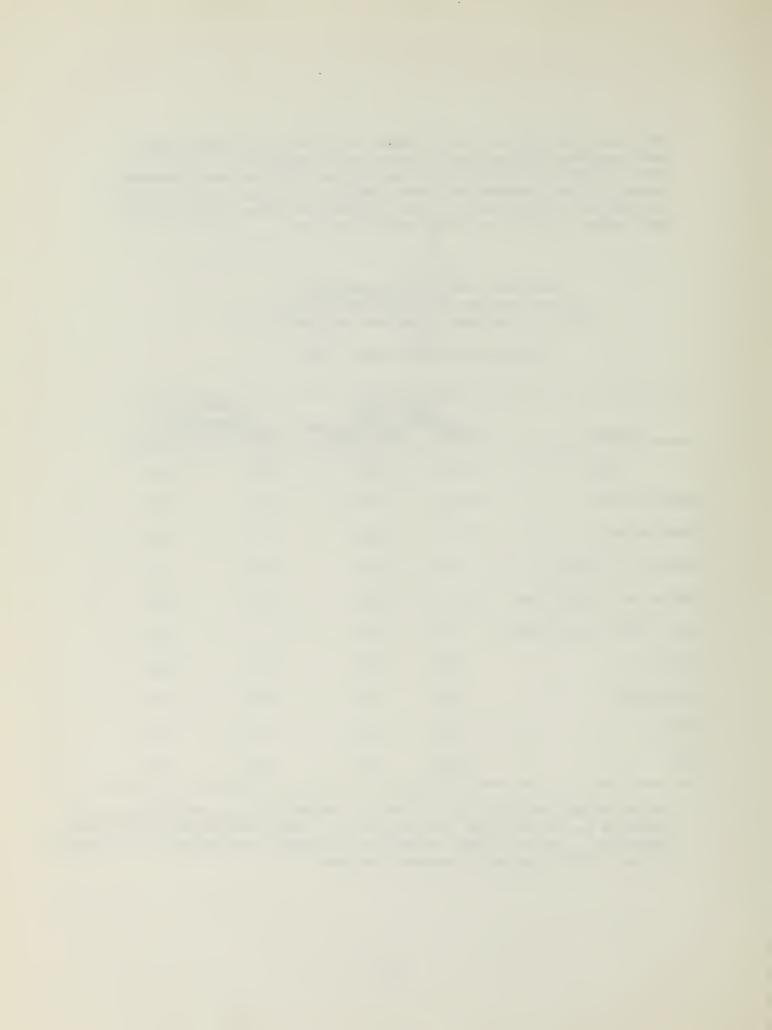


The industries that have the highest percentage of claimants that were unemployed longer than 19 weeks were: wholesale and retail trade, finance, insurance, and real estate, services, and government. One of the main reasons why these industries have longer periods of unemployment is that many of their workers are women. Women tend to have longer durations of unemployment than men.

Table 8
Survey of the Insured Unemployed
In the Lawrence-Haverhill DES Offices
During the Periods of February and March 1977
and
December 1977 and January 1978

	Febr Marc	ruary and th 1977		mber and ary 1978
Industry	Number	Percentage	Number	Percentage
TOTAL	6,678	100.0	4,605	100.0
Manufacturing	2,689	40.3	1,506	32.7
Construction	1,164	17.4	725	15.8
Transp.,/Utilities	163	2.4	105	2.3
Wholesale & Retail Trade	1,094	16.4	661	14.4
Fin.,/ Ins.,/ Real Estate	85	1.3	47	1.0
Services	784	11.7	462	10.0
Government	464	7.0	821	17.8
Others	72	1.1	80	1.7
INA	163	2.4	198	4.3

The percentage decrease over the year in manufacturing, construction, and wholesale and retail trade was the result of employment expansion in these industries. The percentage increase in government was caused by the Internal Revenue Service laying off seasonal workers.



IV. ES Unfilled Job Openings

Job Openings Received and Filled
In the Lawrence and Haverhill Employment Offices
October 1977 to April 1978

Table 9

Occupations	Openings Received	Openings Filled	Ratio of Openings Received to Openings Filled 1/
TOTAL	7,082	3,473	2.0
Professional, Technical Managerial	732	277	2.6
Clerical	1,318	735	1.8
Sales	261	81	3.2
Domestics	11	5	2.2
Other Services	1,062	490	2.2
Processing	1%	106	1.8
Machine Trades	693	284	2.4
Benchwork	1,019	5 2 9	1.9
Structural	6 1 8	313	2.0
Motor Freight Transportation	213	133	1.6
Packaging and Materials Handling	845	480	1.8
Other	114	40	2.9

Source: ESARS

^{1/} Rounded to the nearest whole number



According to the chart on the preceding page, the job openings that had the best chance of being filled were in the following occupations: clerical, processing, benchwork, motor freight, transportation, and packaging and material handling. Many of these occupations are in the secondary job market (jobs that pay low wages and there is little chance of advancement). Many of those jobs listed that are in the primary job market (jobs that pay good wages or there is a chance of advancement) tend to pay somewhat less than the going rate for the training or experience required for these jobs. Therefore, persons who are qualified for these jobs sometimes resist taking them. Thus, the employment offices have the best chance of placing secondary labor market workers, for the jobs listed in their occupations tend to meet their expectations, while this is not true in certain cases for the primary labor market workers.



Table 10
Occupations of Applicants
And Unfilled Job Openings
In the Lawrence and Haverhill DES Offices
For February 1977 and February 1978

		19	7 7	1978			
	Applicants	Unfilled Openings	Ratio of to Appli- cants to Openings	Applicants	Unfilled Openings	Ratio of to Appli- cants to Openings	
Architecture							
and Engineering	422	2 66	2	652	421	2	
Managers	158	2 8	6	164	24	7	
Misc., Prof., Tecand Managerial	h. 32	42	1	46	74	1	
Clerical	1,011	250	4	9 2 9	348	3	
Sales	254	148	2	260	81	3	
Domestic Service	47	10	5	38	5	8	
Service	834	227	4	831	2 85	3	
Farming	145	12	4	2 8	40	1	
Processing	135	20	7	17 5	71,11	4	
Machine Trades	5 2 6	203	3	5 1 8	180	3	
Bench Work	85 2	233	4	862	242	4	
Structural Work	55 2	179	3	587	231	3	
Motor Frght. Tran	s. 239	2 6	9	233	59	4	
Packaging & Mater	ri al 494	146	3	612	150	14	
Misc. Occupations	. 38	15	3	32	13	2	

Source: ESARS



According to the chart on the preceding page, the occupations in which competition for jobs lessened over the year were: clerical, service, farming, processing, motor freight transportation and miscellaneous occupations. The jobs in which competition grew however were: managers, sales, domestic service and packaging and material handling.

Table 11
Occupations of Applicants
In the Lawrence and Haverhill Employment Service Offices
That Have a Higher Than Average 1/ Number
Of Applicants to Job Openings

Number of Applicants	Unfilled Job Openings	Ratio of Applicants To an Opening 2/
	2	6
	1	8
	0	12
	1	7
23	4	6
	0	14
	1	42
2 9	3	10
1 53	1 9	8
16	1	16
130	17	8
	1	40
	3	8
	3	11
	6	9
	0	12
	0	7
		25
11	0	11
•		
- '	0	14
	0	21
14	2	7
	12 8 12 7 23 14 42 29 153 16	Applicants Job Openings



Table 11 Occupations of Applicants In the Lawrence and Haverhill Employment Service Offices
That Have a Higher Than Average 1/ Number Of Applicants to Job Openings (continued)

Occupations	Number of Applicants	Unfilled Job Openings	Ratio of Applicants To an Opening2/
2	30		10
Printing Machine Occup.	10	0	10
Painters Spray Fabrication & Repair of	10	0	10
Rubber & Plastic Footwear Upholstering & Repair of	33	0	33
Mattresses & Bedsprings	8	0	8
Sewing-Machine Operators Fabrication and Repair of	11	0	11
Footwear	186	11	17
Body Repairman- Automobile Carpenters and Related	11	0	ii
Occupations Brick and Stone Masons and	113	9	13
Tile Setters	19	2	10
Trailer-Truck Drivers	52	5	10
Bus Drivers Packaging and Material	27	5 4	7
Handling Occupations	113	15	8

Source: ESARS

1/ Average is three applicants to every job opening.
2/ Rounded to the nearest whole number.



Table 12
Occupations of Applicants
In the Lawrence and Haverhill Employment Offices
That Have a Higher Than Average Number
Of Job Openings to Applicants

Occupations	Number of Applicants	Unfilled Job Openings	Ratio of Job Openings To Applicants 2/
Electrical Engineer	4	2 6	7
Electrical Technician	15	24	2
Civil Engineering Occupations	2	12	2
Mechanical Engieering	21	18	1
Occupations in Psychology	21	49	2
Social Caseworker	2 9	63	2
Bank Teller	11	26	2
Miscellaneous Clerical Occup.	31	59	2
Insurance Salesmen	9	14	2
Guards	45	77	2
Occupations in Assembly and Repair of Electrical Equipment	2 8	†5	2
Building Maintenance Man	61	40	1

Source: ESARS

^{1/} Average = .33 job openings to every applicant or 3 applicants to every job opening.

^{2/} Founded to nearest whole number.

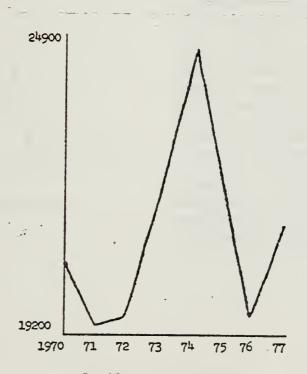


V. Employment Developments and Outlook by Industry

The most important employment development in the Lawrence-Haverhill SMSA that took place in 1977 was durable goods adding 1,600 (20,900 to 22,500) workers to its payroll. One of the main causes behind this growth was an expansion in electrical machinery employment. Durable goods employment went from 24,900 in 1974 to 19,400 in 1976. This loss of payroll (durable goods industry pays a higher hourly wage than many other industries) had a negative impact on the economic growth and well being of the area. In 1977 durable goods industry stopped obstructing economic growth and became a positive factor in the expanding economy. Over the next year durable goods employment should continue to expand slightly.

Employment in the nondurable goods sector over the year increased by 700 (15,500 to 16,200) workers. The industry that was responsible for this growth was leather.

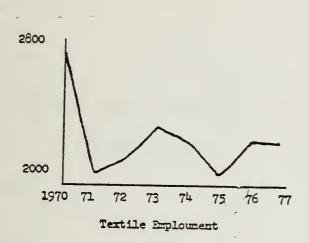
Nonmanufacturing employment continued its secular expansion with a reported 1,600 (57,900 to 59,500) additional workers. An increase in government jobs accounted for 600 of the increment.



Durable Goods Employment



I. Analysis of Individual Industries That Have Contributed To Recent Changes



1970 71 72 73 7¹⁴ 75 76 77

Leather Employment

Textiles

Over half the number of workers in the textile industry in the Lawrence-Haverbill SMSA are employed in knitting mills. Employment in knitting mills grew from 1970 to 1973 and declined in 1974 and 1975. However, in the past two years (1976 and 1977) employment in knitting has climbed back to the 1973 levels. Although employment in knitting mills has been increasing the last two years other types of textile employment have been decreasing. Although textile employment has been in a long-term decline, over the next year it will probably increase slightly. According to the Occupational Research Department, textile employment will increase in the next seven years.

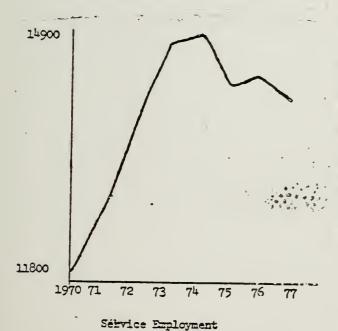
Leather

Employment in this industry has gone from 7,000 workers in 1970 to 5,200 workers in 1975. Foreign competition was the chief reason for this decline. Many firms that produce leather products other than shoes have been adding workers. Since these nonshoe firms only represent a small percentage of total employment they have had little impact on leather employment figures. recent years many shoe manufacturing firms have been cutting back on their payrolls. Although the leather industry is in a secular downtrend it did make some significant employment gains, the result of some firms that produce women's shoes adding on workers, in the last months in 1977.









Construction

After two years, 1975 and 1976, of declining payrolls employment in construction within the past twelve months has increased by 400 workers. This growth was the result of more homes being built and older building have repairs done or additions added on. Despite declining payrolls in 1974,1975, and 1976 construction is in a secular uptrend and in two or three years should regain lost employment it has suffered in recent years.

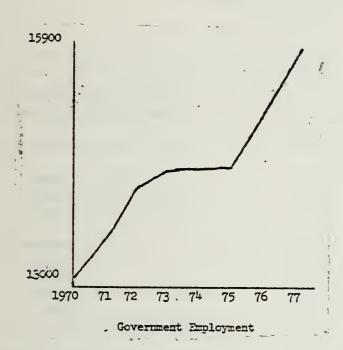
Wholesale and Retail Trade

Over the year wholesale and retail trade continued its secular growth by increasing its payroll by 200 workers. The greatest growth in this sector, during the past six years, occurred in eating and drinking establishments. Automobile dealers, gasoline service stations, and food stores also witnessed employment growth. Wholesale and retail trade employment should continue increasing its payroll over the next twelve months.

Service

Service employment declined slightly in 1977 as the result of decreasing payrolls in automotive repairs, business services, personal services, and miscellaneous repair services. Although employment in the service sector has decreased in the past year the sector is really in a long-term growth pattern and is expected to be adding on workers in the next few years. During the past few years the fastest growing industry in the service sector has been the medical and health field. Some of the other industries





that are adding on workers are: amusement and recreational services, legal services, and services which provide lodgings. In 1978 service employment should climb back to 1975 levels.

Government

In recent years government employment has been growing. This growth is primarily the result of city and town governments expanding their payrolls in order to meet the demand of an ever more complicated world. New employees are needed to perform such functions as applying for federal funds, which have become available in recent years, and meeting new educational and service needs of its citizens. Government employment will probably expand over the next year but at a slower rate that it has in the past few years.



Table 13
Lawrence-Haverhill, Massachusetts-N.H. SMSA
Nonagricultural Wage and Salary Employment
Annual Average - 1971-1977
(in 000's)

	1971	1972	1973	1974	1975	1976	1977
Nonagricultural Wage							
and Salary Employment	90.2	93.6	98.5	99.8	94.7	92.7	96.4
Manufacturing - Total	38.3	38.3	40.6	41.7	38.4	35.6	37.5
Durable Goods	19.2	19.4	21.9	24.9	22.2	19.4	21.7
Machinery (exc. elec.)	2.2	2.2	2.4	2.6	2.2	2.2	2.5
Other Durable Goods	17.0	17.2	19.5	22.3	20.0	17.2	19.2
Nondurable Goods	19.1	18.9	18.7	16.8	16.2	16.2	15.8
Textiles	2.0	2.2	2.4	2.3	2.0	2.3	2.3
Paper	1.4	1.3	1.4	1.4	1.3	1.4	1.2
Rubber & Misc. Plastics	2.6	2.8	3.2	2.9	2.4	1.8	2.0
Leather	6.7	6.2	5.7	4.4	4.7	4.8	4.6
Other Nondurable Goods	6.4	6.4	6.0	5.8	5.8	5.9	5.7
Nonmanufacturing - Total	51.9	5 5. 3	57.9	58.1	56.3	57.1	58.9
Construction	2.8	3.2	3.3	3.0	2.3	2.1	2.4
Transportation, Communicati							
Utilities	2.9	3.3	3.7 18.5	3.6 18.8	3.5 18.4	3.2	3.5
Trade	17.1	17.5	10.5	70.0	10.4	19.0	19.5
Finance. Insurance, and Real Estate	2.8	2.9	2 1	2 2	3.3	2 2	26
Service, Miscellaneous	2.0	2.9	3.1	3.3	2.2	3.3	3.6
Mining	12.7	14.1	14.8	14.9	14.3	14,4	14.0
Government	13.6	14.3	14.5	14.5	14.5	15.1	15.9
			,	,			-/•/



Since 1970 nonagricultural employment has risen every year except in 1971, 1975, and 1976. The reasons for these decreases were: 1971, cutbacks in defense spending; 1975, a recession and declining electrical machinery payrolls; and 1976, the continued decrease in electrical machinery employment. Although the 1977 nonagricultural employment grew by 3,700 jobs over the year, it still has not reach the 1974 employment level of 99,800. However, with prospects for more job openings in durable goods and in the nonmanufacturing sector there is a possibility that the 1978 nonagricultural employment will reach the 1974 level.



Table 14

Employment Projections by Industries
For
Lewrence-Haverhill SMSA
From 1974 to 1985

	1974	1985	Percentage Increase Or Decrease
TOTAL	1 04,849	112,486	+ 7.3
Manufacturing	41,597	41,522	- 0.2
Durable Goods	25,540	26,489	+ 3.7
Ordnance	6,398	6,583	+ 2.9
Furniture & Fixtures	801	875	+ 9.2
Primary Metal Industries	1 59	145	- 8.8
Fabricated Metal Prod.	1,641	1,704	+ 3.8
Nonelectrical Machinery	2,474	2,634	+ 6.5
Electrical Machinery	12,448	12,912	+ 3.7
Transportation Equipment	446	484	+ 8.5
The Rest	1,173	1,152	- 1. 8
The Rest	1,1(3	1,172	- 1.0
Nondurable Goods	16,057	15,033	- 6.4
Food	909	801	-11. 9
Textile	2,159	2,221	+ 2.9
Apparel	2,042	2,132	+ 4.4
Paper & Allied Products	1,254	1,144	- 8.8
Printing & Publishing	808	881	+ 9.0
Chemical & Allied Prod.	1,705	1,712	+ 0.4
Rubber, Miscellaneous			
Plastic Products	2,944	2,799	- 4.9
Leather Products	4,167	3,270	-21,5
The Rest	69	73	+ 5.8
Transportation, Comm.			
and Utilities	4,234	4,112	- 2. 9
Wholesale Trade	3,454	3,799	+10.0
Retail Trade	17,544	19,143	+ 9.1
Finance, Insurance	-19217	- 2,5-73	•)•=
Real Estate	3,711	4,021	+ 8.4
Services	21,903	27,387	+25.0
DET ATCES	21,703	21,301	127.0
Nonprofit Organization	1,509	1,612	+ 6.8
Government	6,111	5,859	- 4.1
Other	4,156	4,382	+ 5.4



VI. Employment Development and Outlook by Occupations

Occupations That Are Expected to Have Above
Average Percentage Growth Rate For
1974 to 1985

Occupations	1974	1985	Annual Average Increase	Percentage Increase
Chemical Technicians	86	110	2	27.0
Orafters	732	889	14	21.0
Electrical, Electronic Tech.	533	675	13	27.0
Industrial Engineering Tech.	72	97	2	34.7
Mechanical Engineering Tech.	51	62	1	21.6
Surveyors	106	124	2	17.0
Engineering, Science Tech. n.e.c.	336	401	2 6	19.3
Dentist	147	209	6	42.2
Optomerists	12	17		41.7
Physicians, M.D. Osteopaths	293	380	- 8	29.7
Therapists	134	196	6	46.3
Veterinarians	11	16		45.5
Dental Hygienists	42	115	7	173.8
Health Record Technology Tech.		ıí	_	22.2
Therapy Assistants	9 4	8	_	46.9
Other Health Technology Tech.	32	47	1	46.9
Airplane Pilots	28	38	ī	35.7
Air Traffic Controller	17	21	-	23.5
Tool Programers, Numerical	6	8	-	33.5
Other Technicians, exc. Health	96	162	6	68.8
Computer Programers	343	378	3	10.2
Computer Systems Analysts	193	256	Ğ.	32.6
Economists	113	144	3	27.4
Editors and Reporters	185	215	- 6 3 6 3 3 2	16.2
Musicians and Composers	100	121	2	21.0
Painters and Sculptors	135	163	3	20.7
Photographers	135	147	3 1	8.9
Writers, Artists, Entertainers				
n.e.c.	97	159	6	63.9
Clergy	289	323	3	11.8
Librarians	95	154	5	62.1
Operations, Systems Research	184	266	7	44.6
Bank, Financial Managers	551	666	10	20.9
Credit Managers	78	90	1	15.4



Table 15

Occupations That Are Expected to Have Above Average Percentage Growth Rate For 1974 to 1985

(continued)

		,		····
			Annual	
0			Average	Percentage
Occupations	1974	1985	Increase	Increase
		-0-		00.0
Buyers, Wholesale, Retail	221	289	6	30.8
Purchasing Agents, Buyers n.e.c.	232	286	5	23.3
Sales Manager	903	1,136	21	25. 8
Health Administrators	217	256	4	18.0
Office Managers	361	444	8	23.0
Demonstrators	36	48	1 3	33.3
Hucksters and Peddlers	217	245	3	12.9
Sales and Sales Workers n.e.c.	4,490	5,075	53	13.0
Secretaries , Legal	175	221	4	26.3
Secretaries, Medical	129	167	3	2 9.5
Secretaries, Other	2,780	3,573	72	28.5
Billing Clerks	181	233	5	28.2
Clerical Supervisors	370	423	5 5 5	14.3
Counter Clerks, exc. Food	385	443		15.1
Expeditors, Prod. Controllers	544	695	14	27.8
Insurance Adjust, Examiner	147	171	2	16.3
Library Attendants	244	280	3 5	14.8
Receptionists	352	410	5	1 6.5
Misc. Clerical Workers n.e.c.	1,700	2,652	87	56.0
Carpenters and Apprentices	1,253	1,470	20	17.3
Bulldozer Operators	90	131	4	45.6
Excavating, Grading, Machine Opr.	206	261	5	26.7
Plumbers, Pipefitters, and Appr.	452	555	9	22.8
Roofer and Slaters	232	285	5 1	22.8
Opticians, Lens Grinder, Polisher	18	27	1	50.0
Metal Platers	100	121	2	21.0
Welders and Flame Cutters	327	374	4	14.4
Winding Operatives, n.e.c.	742	884	13	19.1
Cleaning Service Workers	2,153	2,825	61	31.2
Lodging Quotes Cleaners	167	229	6 .	37.1
Bldg. Interior Cleaners n.e.c.	640	891	23	39.2
Janitors and Sextons	1,346	1,706	33	26.7
Bartenders	272	322	5	18.4
Cooks	992	1,333	31	37.0
Dishwashers	327	389	6	19.0
Food Counter Workers	485	658	16	35.7
TOOK OOKHOCI HOTICID	,0)	- , -		



Table 15

Occupations That Are Expected to Have Above
Average Percentage Growth Rate For
1974 to 1985
(continued)

Occupations	1974	1985	Annual Average Increase	Percentage Increase
faiters	1,141	1,319	16	15.6
Dental Assistants	139	192	5	38.1
Health Aides	206	240	3	16.5
Aurses Aides, Orderlies	1,041	1,312	25	26.0
ractical Nurses	972	1,452	44	49.4
Child Care Workers	168	437	24	160.1
Welfare Service Aides	74	99	2	33.8
Animal Caretakers, exc. Farming	142	197	5	38.7
Gardeners, Groundkeeper	318	372	5	17.0
				•

Source: Occupational Research Department DES 1/ Average Percentage Rate = 11.5 percent

Occupations in construction, health, restaurants, and in the clerical field are expected to have good growth rates in the next few years.



Table 16
Occupations Which Are Declining In Numbers

Occupation	1974	1985	Decrease
Bioligical Scientists	18	3 =	2
Dietitians		15 2 0	3 1
Stenographers	30 58	2 9 2 7	
Calculating Machine Oper.	-	28	31 11
Keypunch Operators	39 699	505	
	2 64	248	194 16
Mail Carriers, Post Office	764		
Telephone Operators		534	230
Machinists and Apprentices	807	764	43
Millwrights	117	94	23
Pattern and Model Makers	131	9 2	39
Composition and Typesetters	195	167	28
Power Station Operators	40	3 1 62	9 3 8
Telephone Line Instal., Splice:			
Furniture and Wood Finishers	50	45	5
Shoe Repairers	131	73	58
Stationary Engineers	193	166	27
Tailors	96	84	12
Semiskilled Metal Working	1,427	1,351	76
Lathe, Milling Machine Oper.	162	147	15
Solderers	348	244	104
Knitters, Loopers, & Toppers	72	54	18
Graders & Sorters, Mfg.	90	76	14
Garage Workers, Gas Station	1.05	202	50
Attendants	435	383	52
Mixing Operatives	112	102	10
Oilers, Greasers, Exc. Auto	32	22	10
Shoemaking Machine Operatives	966	588 036	378
Bus Drivers	242	236	6 6
Parking Attendants	21	15	•
Taxicab Drivers, Chauffeurs	170	144	32
Barbers	167	118	49
Elevator Operators	38 648	23	1 5
Firefighters		583	65
Private Household Workers	267	151	116

Source: Occupational Research Department DES



VII. Estimate of Need for Manpower Services

a. Characteristics of the Economically Disadvantaged

The term economically disadvantaged individual means an individual who is a member of a family that:

- 1. receives cash welfare payments, or
- 2. has a total family income which, in relation to family size, does not exceed the poverty level determined in accordance with criteria established by the Office of Management and Budget.

Table 17
Poverty-Level Guidelines for 1978

Family Size	Nonfarm	Farm
1	\$3,140	\$2,690
2	\$4,160	\$3,550
3	\$5,180	\$4,410
4	\$6,200	\$5,270
5	\$7,220	\$6,130
6	\$8,240	\$6,990



Table 18

ADDITIONAL PLANNING DATA PROJECTIONS

FISCAL YEAR 1979

Lawrence-Haverhill SMSA

	Employed Part-Time for Economic Reasons
TOTAL	4,640
White Male	1,960
White Female	2,625
Nonwhite Male	28
Nonwhite Female	27

Economically Disadvantage 18 Years and Over TOTAL 20,524 White 20,319	
	ed
White 00 330	
White 20,319	
Black 182	
Other 23	
Spanish 902	



Table 19

Characteristics of Job Applicants
For October 1976 to April 1977

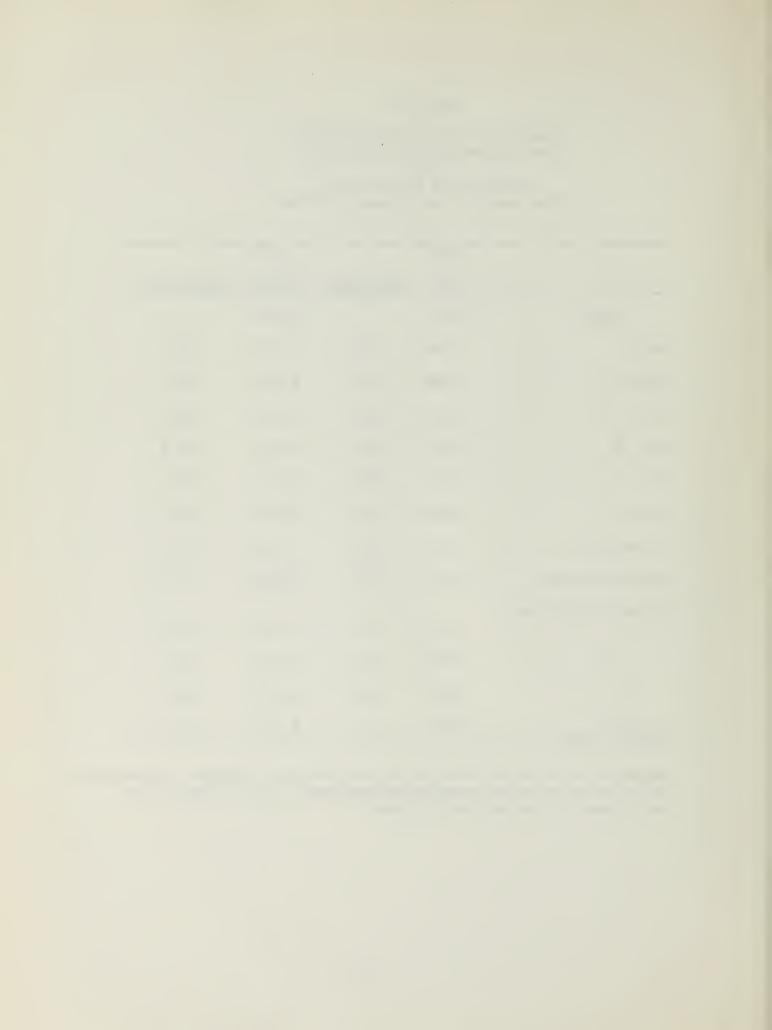
and
October 1977 to April 1978

In The Lawrence and Haverhill Offices

	1976 to	_	1977 to	
	1977	Percentage	1978	Percentage
TOTAL	14,446		13,596	
Males	7,542	52.2	7,161	52.7
Under 20	2,064	14.3	2,002	14.7
20 - 24	3,466	24.0	3,116	22.9
25 - 2 9	2,485	17.2	2,199	16.2
30 - 44	4,048	28.0	3,865	28.4
45 - 64	2,256	15.6	2,264	16.7
65 and over	127	0.9	150	1.1
Spanish American	1,233	8.5	1,169	8.6
Highest School Grade 0 - 7	798	5.5	813	6.0
8 - 11	5,171	35.8	4,981	36.6
12	5,676	39.3	5 ,21 8	38.4
Over 12	2,801	19.4	2,584	19.0

Source: ESARS

According to the above table within the past year teenagers, and workers age 45 years and older increased proportionally their share of the total number of workers seeking work.



WIN:

The Work Incentive Program was enacted to aid families receiving AFDC payments to obtain gainful employment or training that would lead to gainful employment. In the Lawrence-Haverhill SMSA there are two WIN teans in operation - one in the Lawrence Office area, and one in the Haverhill Office area.

Table 20 Characteristics of Applicants in WIN From October 1977 to March 1978

	Lawrence Applicants	Percentage	Haverhill Applicantss	Percentage
TOTAL	1,330		1,529	
Female	965	72.6	1,148	75.1
Under 20	105	7.9	111	7.3
30 - 39 years old	534	40.2	603	39.4
12 or more years of schooling	541	40.7	695	45.5
Spanish American	313	23.5	51	3.3
Veterans	98	7.4	139	9.1
Vietnam Veterans	16	1.2	23	1.5
45 years or older	246	18.5	175	11.4
Disadvantaged	1,329	99.9	1,524	99.7

Source: ESARS

The higher percentage of Spanish Americans in the Lawrence WIN office is the result of a heavier concentration of Spanish Americans in the city of Lawrence than in the city of Haverhill.



CETA:

The Comprehensive Employment and Training Act of 1973 provides job training and employment opportunities for economically disadvantaged, unemployed and underemployed persons and assumes that training and other services lead to maximum employment opportunities which will enhance self-sufficiency. CETA offers a number of types of opportunities under Title I, Title II and Title VI of the Act. Title I is that portion of the act devoted to jobs, work experience, or classroom training. Titles II and VI are emergency public service employment functions of the act, Title II being somewhat stricter in that the community using Title II funds is thereby pledged to continue a certain percentage of the jobs on a permanent basis and participants are eligible for the same job benefits accorded regular employees.

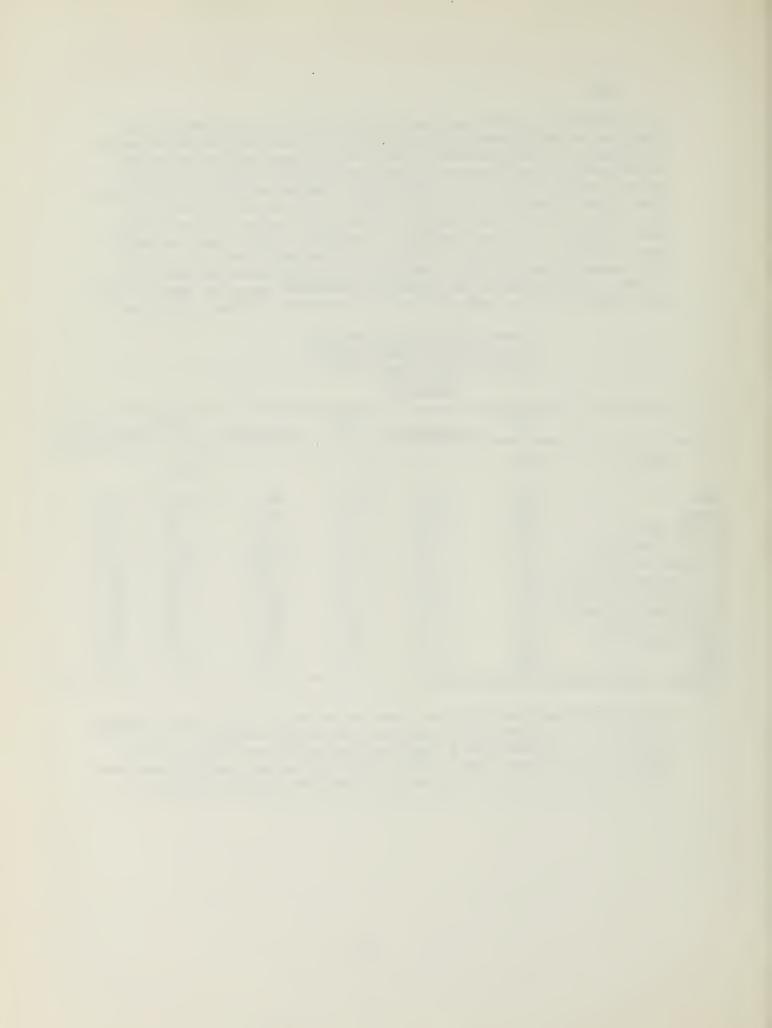
Characteristics of Enrollees In the Lawrence CETA Program October 1977 to March 1978

Table 21

	Title		Title		Title	
	I	Percentage	II	Percentage	VI	Percentage
TOTAL	768		344		1,611	
Male	405	52.7	222	64.5	1,157	71.8
Female	363	47.3	122	35.5	454	28.2
L8 and under	315	41.0	1 6	4.7	28	1.7
19 - 44 years old	414	53.9	276	80.2	1,319	81.9
5 years and over	39	5.1	5 2	15.1	264	16.4
) - 8 years of School	197	25.7	30	8.7	181	11.2
- 11 years of school	371	48.3	78	22.7	32 9	20.4
ligh School Graduate	177	23.0	120	34.9	569	35.3
Post High School	2 3	3.0	116	33.7	532	33.0
panish American	190	18.9	25	7.3	112	7.0
FDC	263	34.2	71	2 0.6	2 80	17.4

Source: CETA Program Status Summary

The above table shows that the characteristics of the average enrollee in Title I is somewhat different then the average enrollee in Title II or Title VI. Title I has a higher percentage of enrollees that are: women, under 18 years old, nonhigh-school graduates, Spanish Americans, and in the AFDC (Aid to Families with Dependent Children) program.



THE FOLLOWING ESARS TABLES HAVE BEEN ENCLOSED TO FOCUS ON THE CHARACTERISTICS OF APPLICANTS REGISTERED IN EMPLOYMENT SERVICE OFFICES FOR OCTOBER 1977 THROUGH MARCH 1978.

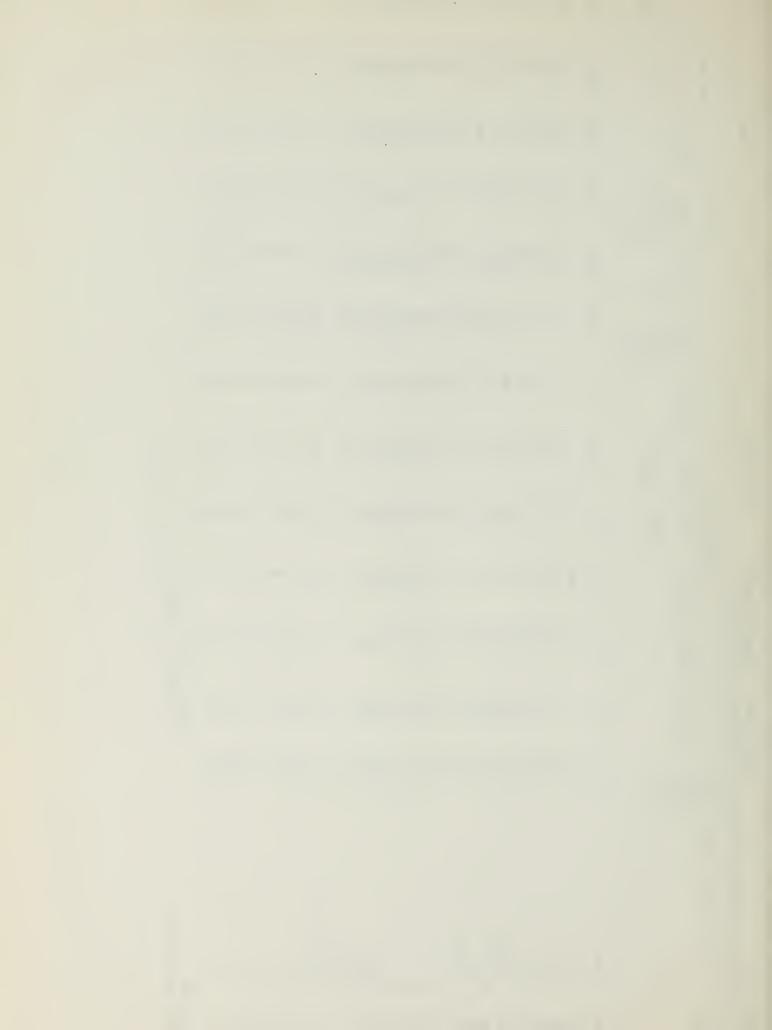
TABLE 96, WHICH LISTS THE OCCUPATIONAL ATTACHMENT OF APPLICANTS, GIVES ONLY THE RESPECTIVE DOT CODES. ENCLOSED AFTER THE TABLE IS THE DOT CODES WITH THEIR COMPATIBLE OCCUPATIONAL TITLES.

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BOSTON, MASSACHUSETTS 02114.



96	
TABLE 96 APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION	
SMSA 4160	
SMSA	
1ASSACHUSETTS 3CCUPATION	
S BY G	
03/31/78 OPENINGS	
L JOB	
TABLE 96 APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY CCCUPATION	
AND	
96 CANTS	
TABLE 96 APPLICANTS	

ITEM	. OCCUPATIONAL CODE	TOTAL .			ACTIVE	VE FILE			•		NONAGRI CUL TURAL		OPENINGS	
2		TERED .	TOTAL	EMALE	ETERAN.	Ш	aups	. MI NOR	ECONOM-	TOTAL	MANDA-	. OPENING.	. UNFILLED	OPE
		. AVAIL ABLE	• • • •			UNDER 22	5 AND				- NG		TOTAL	30 DAY
96 96	. TOTAL	. C .	D	E .	F .	9 . 1451	H 1364	. 187	J 2637	K 5832	L 1807	. M	N 1823	0 1103
96	0-1	1273	732	244	276	31	164	31	153	645	142	238	288	224
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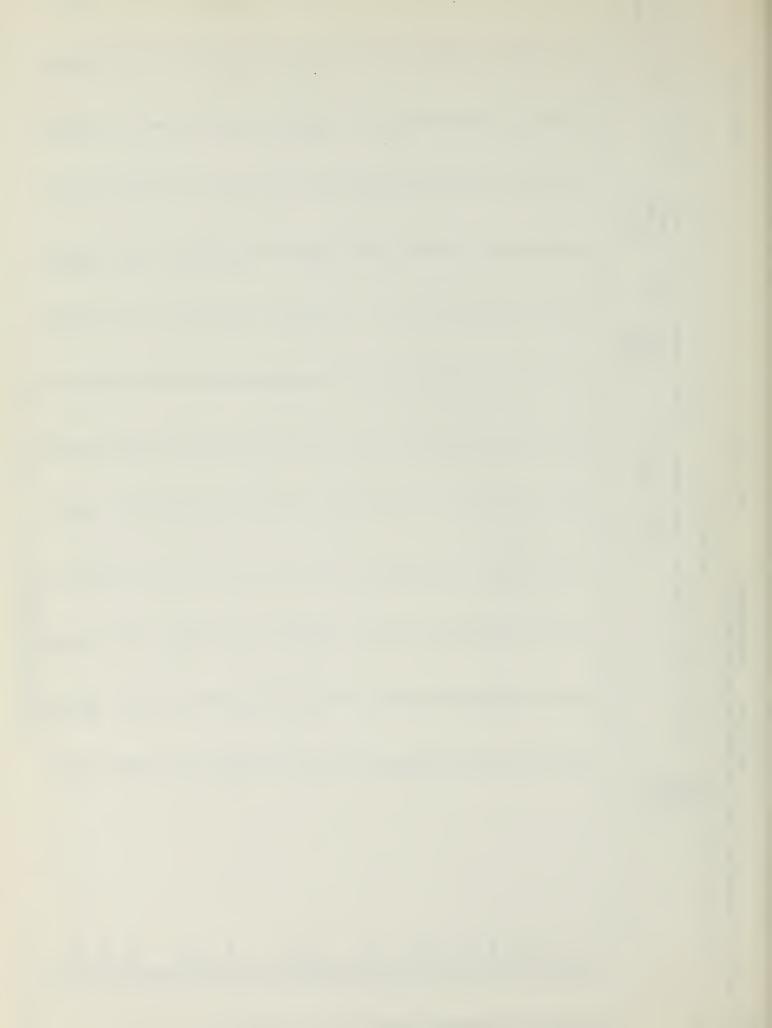
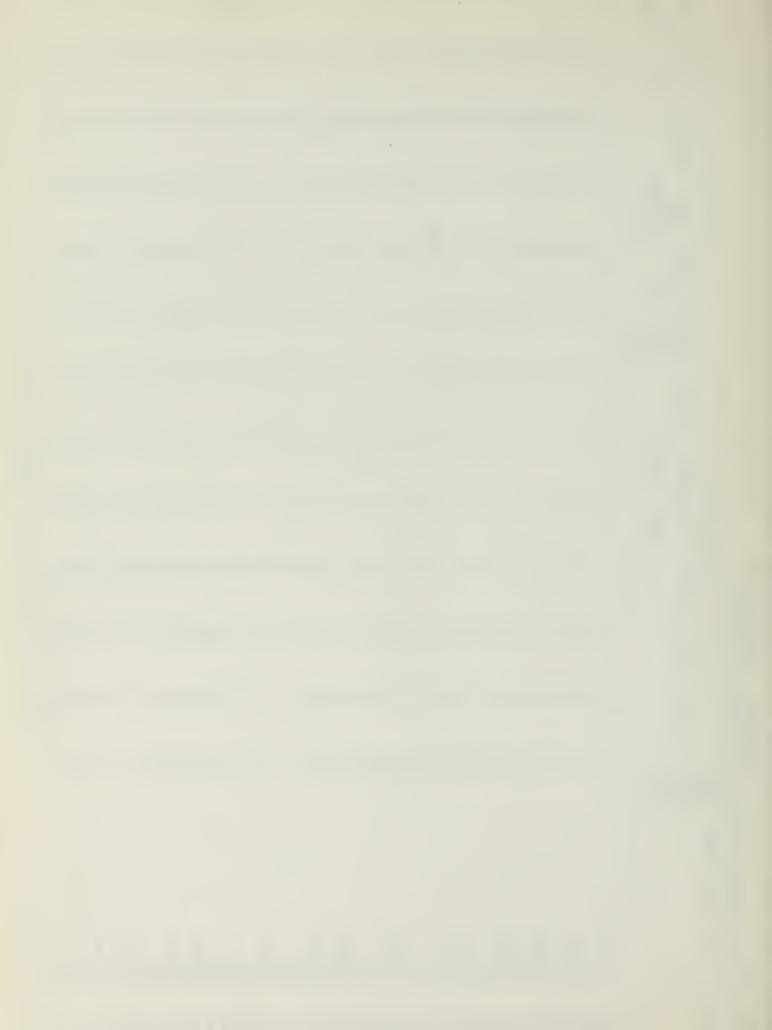


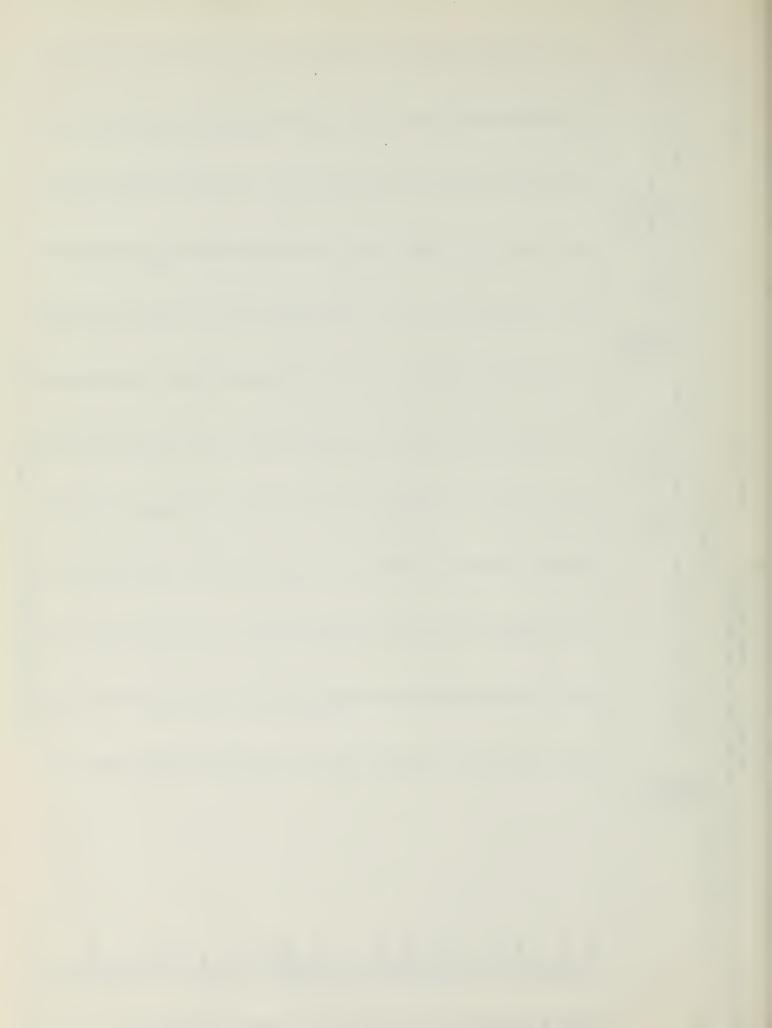
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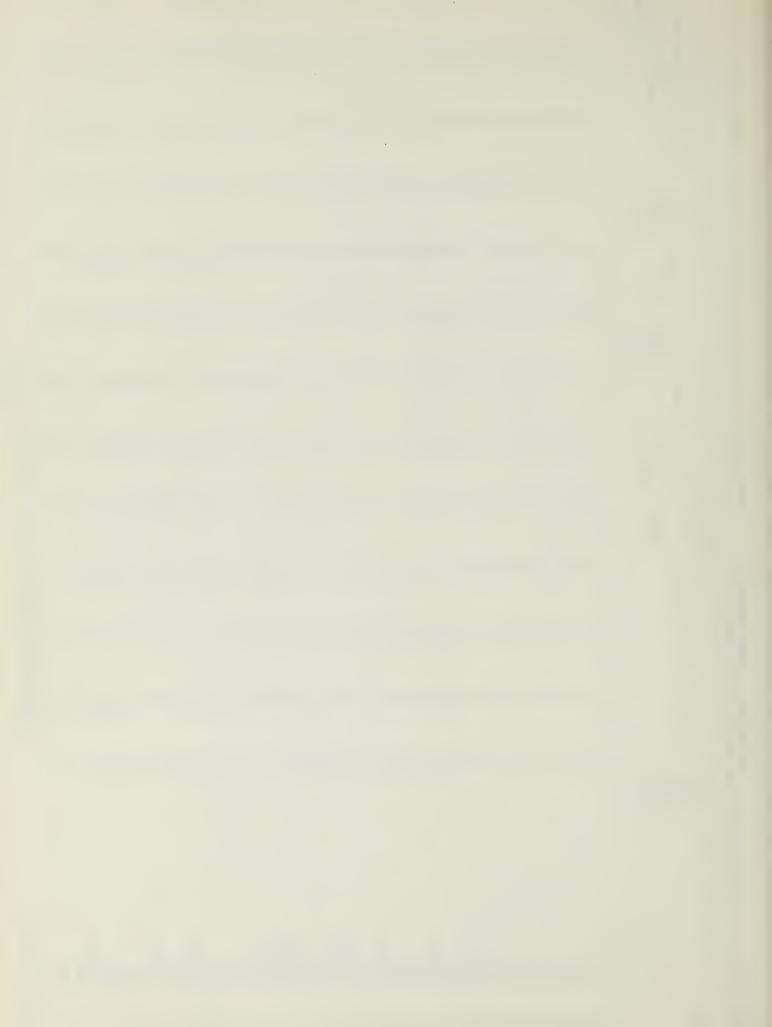
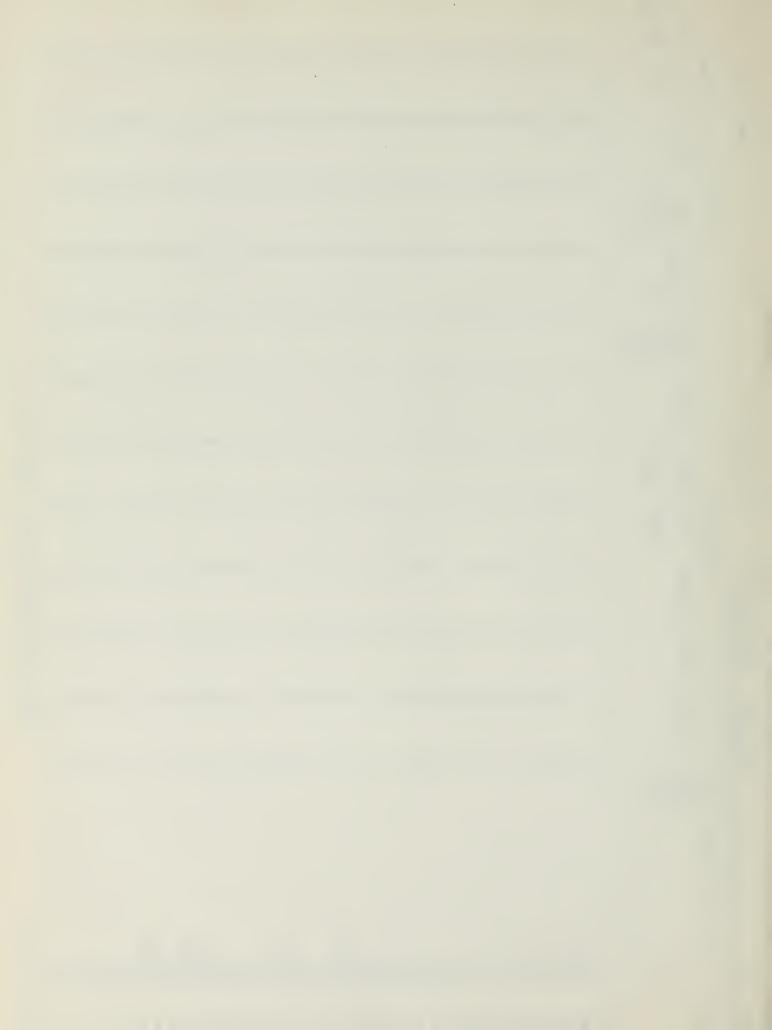


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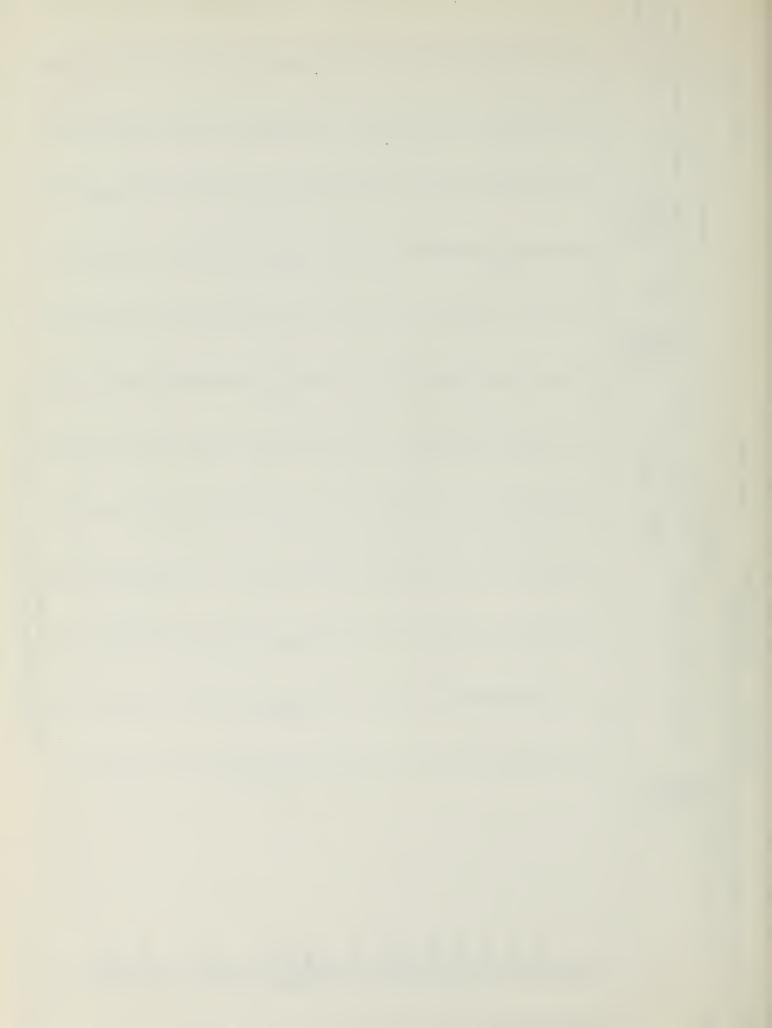


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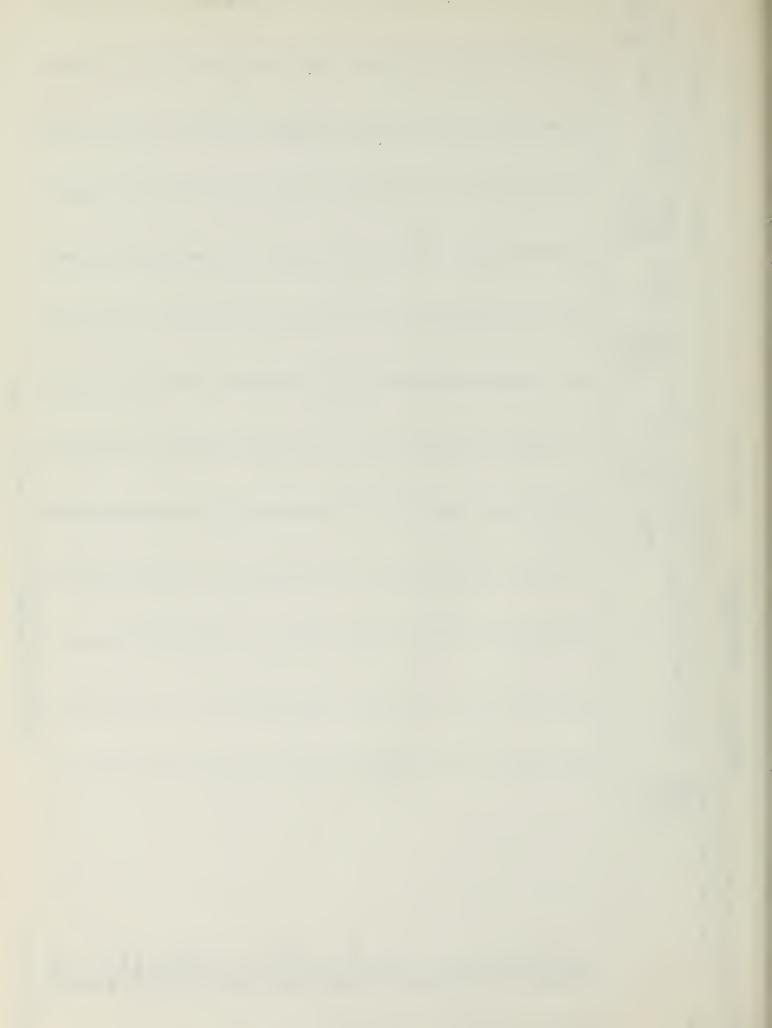


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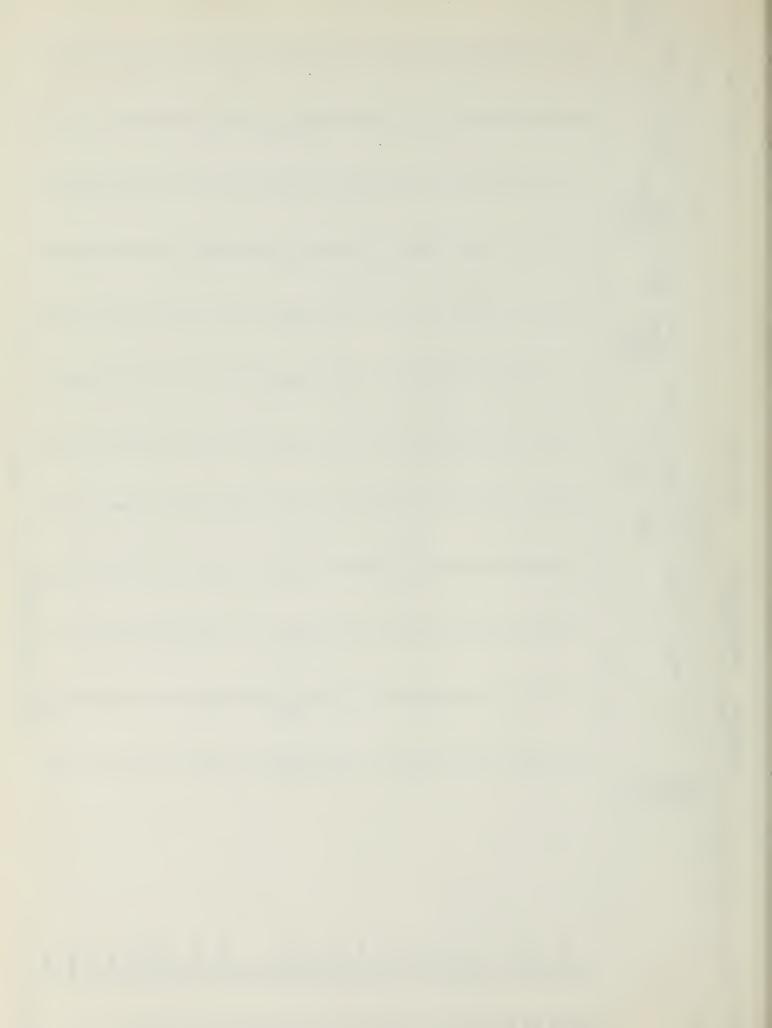
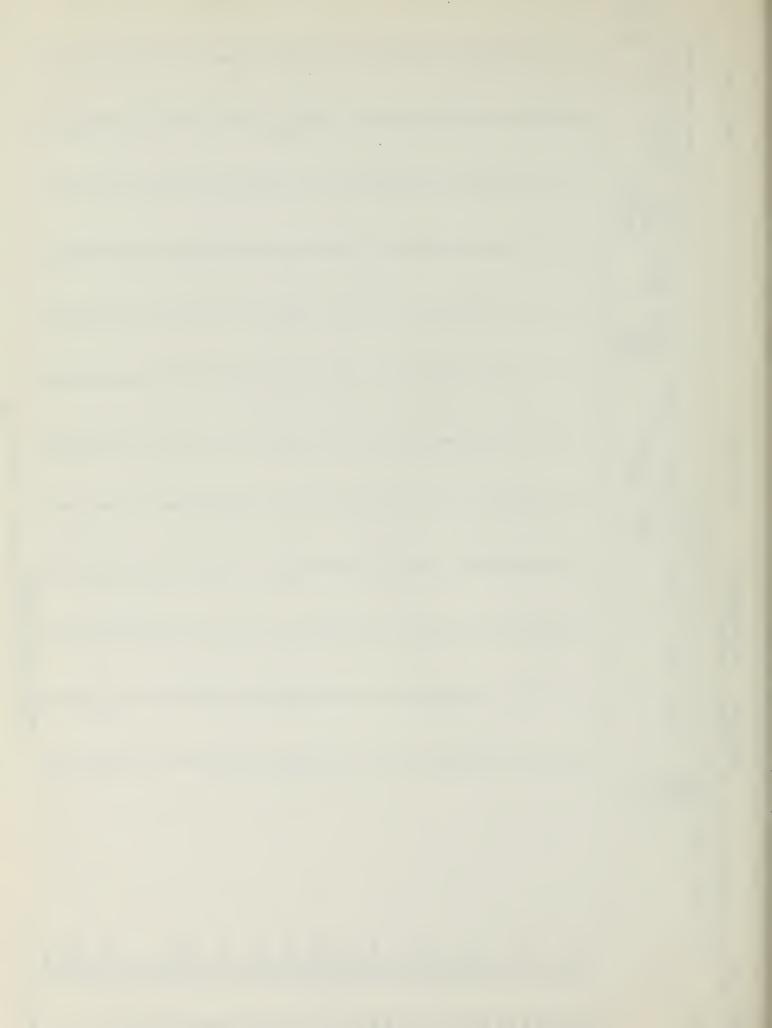
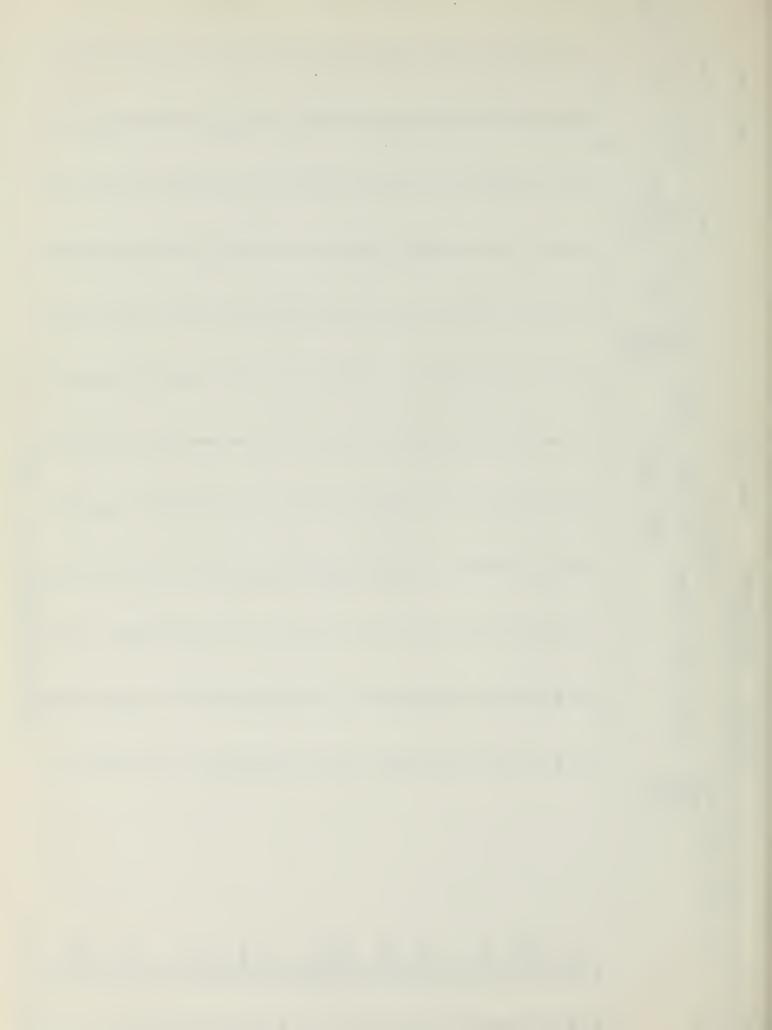


TABLE 96 APPLICANTS	AND NONAGRI		/31/78 PENINGS	MASSA BY CCCUP	CHUSETTS	S	SMSA 4160					TABLE	96	
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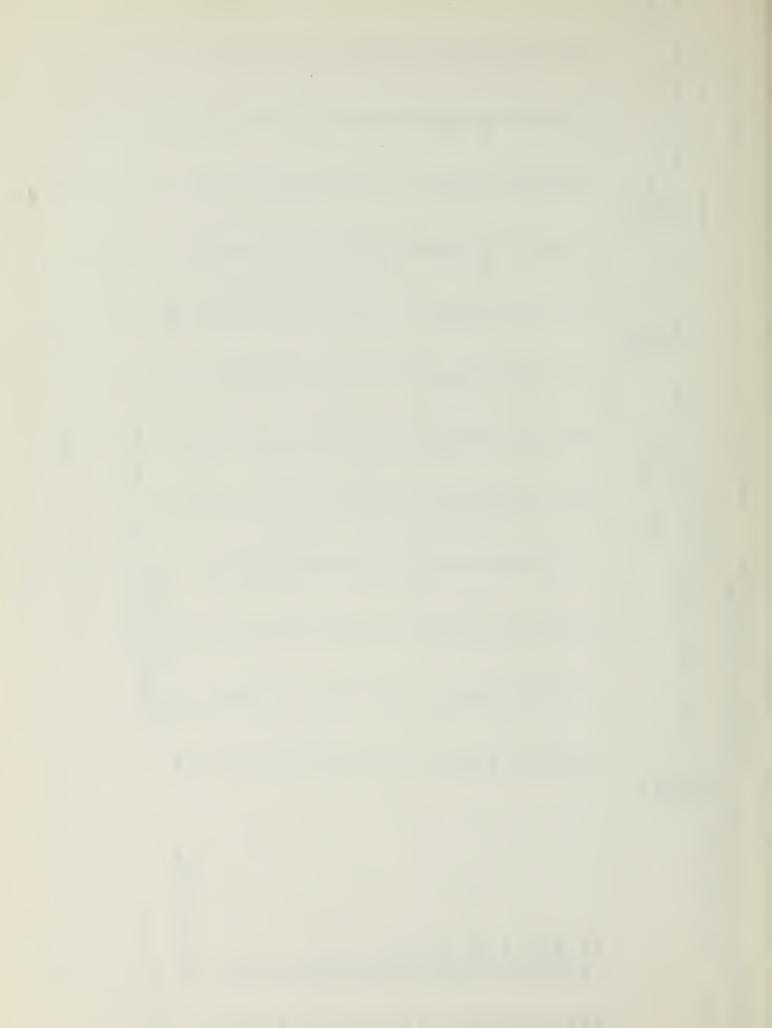


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TABLE 96 APPLICANTS AND NGNAGRICULTURAL JOB OPENINGS BY OCCUPATION	ITEM . OCCUPATIONAL CODE . TOTAL .
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		PROFESSIONAL, TECHNICAL, AND MANAGERIAL WORK		10 MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES
		00,01 ARCHITECTURE AND ENGINEERING	100	Library work
		adda month win publishrying	101	
	001	Architecture		
	002		102	
	003		109	Museum, library, and archival sciences, n.e.c.
	005			
	006			11 LAW AND JURISPRUDENCE
	000			
	007		110	
			111	
	010	Mining and petroleum engineering	119	Law and jurisprudence, n.e.c.
	011	Metallurgy and metallurgical engineering		
	012 013	Industrial engineering		12 RELIGION AND THEOLOGY
		Agricultural engineering		
	014	Marine engineering	120	Ministerial work
	015	Nuclear engineering	129	Religion and theology, n.e.c.
	017	Drafting and related work		
	018	Surveying and related work		13 WRITING
	019	Architecture and engineering, n.e.c.		
			130	Freelance writing
		02 MATHEMATICS AND PHYSICAL SCIENCES	131	Writing and editing, motion pictures, radio and TV
			132	Writing and editing, publications
	020	Mathematics	137	Interpreting and translating
	021	Astronomy	139	Writing, n.e.c.
		Chemistry		
		Physics		14 ART
		Geology		
	025	Meteorology	141	Commercial art
	029	Mathematics and physical sciences, n.e.c.	142	
			143	= -
		04 LIFE SCIENCES	144	
			148	
	040	Agricultural sciences	149	Art work, n.e.c.
п	041	Biological sciences		
	045	Psychology		15 ENTERTAINMENT AND RECREATION
	049	Life sciences, n.e.c.		
			150	Dramatics
		05 SOCIAL SCIENCES	151	
				Music
	050	Economics		Athletics and sports
	051	Political science	159	
	052	History	100	Entertainment and recreation, m.c.c.
	054	Sociology		16 ADMINISTRATIVE SPECIALIZATIONS
	055	Anthropology		10 ADMINIQUATIVE SIEGIAEIEMIIONS
	059	Social sciences, n.e.c.	160	Accounting and auditing
		and a second sec	161	
		07 MEDICINE AND HEALTH		
		The second strip than the second seco	162	Sales and distribution management
	070	Medicine and surgery		
	071	0	164	Advertising management
	072	Dentistry	165	Public relations management
	073	Veterinary medicine and surgery	166	Personnel and training administration
	074	Pharmacy Pharmacy	168	Inspecting and investigating, managerial and pub. serv.
	075	Nursing	169	Administrative specialties, n.e.c.
	077	Dietetic work		10 2424 6776 127 677767176 27 7 6
	078			18 MANAGERS AND OFFICIALS, N.E.C.
	079	Medical and dental technology	***	
	0,,	Medicine and health, n.e.c.	180	Agriculture, forestry, and fishing management
		09 EDUCATION	181	Mining management
		09 EDUCATION	182	Construction management
	090	College and underwards	183	Manufacturing industry management
	090	College and university education	184	Transportation, communication, and utilities, mgt.
	092	Secondary school education	185	Wholesale and retail trade management
	094	Primary school and kindergarten education	186	Finance, insurance, and real estate management
	094	Education of the handicapped	187	Service industry management
	096	Home economics, agriculture, and related education	188	Public administration management
	097	Vocational education, n.e.c.	189	Miscellaneous managerial work, n.e.c.
	033	Education, n.e.c.		



	19 PROFESSIONAL, TECHNICAL, & MANAGERIAL		25 SALES AGENTS, SERVICES
			· · · · · · · · · · · · · · · · · · ·
191	Business relations work, n.e.c.	250	Saleswork, real estate and insurance
193	Radio operating	251	Saleswork, securities
194	Sound recording, transcribing, & reproducing	252	Saleswork, business and financial services
195	Social and welfare work	253	Saleswork, radio and television broadcasting services Saleswork, hotel services
196 197	Airplane piloting & navigating Managerial & technical work, water transportation	254 255	Saleswork, transportation services
197	Managerial work, railroad transportation	256	Saleswork, maintenance and repair services
199	Misc. prof., tech., & managerial work, n.e.c.	257	Saleswork, utilities
200	indice profess decing a managerial work, incite.	258	Saleswork, printing and advertising
	CLERICAL AND SALES WORK	259	Saleswork, services, n.e.c.
	20 STENOGRAPHY, TYPING, FILING & RELATED OCCUPATIONS		26, 27, 28 SALES AGENTS AND SALESPERSONS, COMMODITIES
201	Secretarial work	260	Saleswork, horticultural and nursery products
202	Stenography	261	Saleswork, agricultural products, n.e.c.
203	Typing	262	Saleswork, foodstuffs, beverages, and tobacco
204	Correspondence work .	263	Saleswork, textiles, textile products, and apparel
205	Personnel work	264	Saleswork, leather and leather products
206	Filing	265	Saleswork, paper and paper products
207	Duplicating-machine work	266	Saleswork, chemicals and drug preparations
208	Miscellaneous office machine work	267	Saleswork, fuel and petroleum products
209	Stenography, typing, filing, & related work, n.e.c.	268 270	Saleswork, plastics products Saleswork, rubber products
	21 COMPUTING & ACCOUNT-RECORDING	271	Saleswork, stone, clay, and glass products
	21 COMPUTING & ACCOUNT-RECORDING	273	Saleswork, metal and metal products
210	Bookkeeping	274	Saleswork, housefurnishings
211	Cashiering	275	Saleswork, hotels and restaurant equipment and supplies
212	Teller service ·	276	Saleswork, industrial, construction, mining and
213	Automatic data processing		drilling equipment and supplies
214	Billing-machine work	277	Saleswork, farm and garden equipment and supplies
215	Bookkeeping-machine work	278	Saleswork, household appliances and electrical
216	Computing-machine work		machinery, equipment, and supplies
217	Account-recording-machine work, n.e.c.	280	Saleswork, transportation equipment
219	Computing & account recording, n.e.c.	281	Saleswork, business and commercial machines, equipment, and supplies
	22 MATERIAL & PRODUCTION RECORDING	282	Saleswork, medical and dental equipment, supplies
			and appliances
221	Clerical work, production	283	Saleswork, jewelry and silverware
222	Clerical work, shipping and receiving	284	Saleswork, scientific apparatus
223	Stock checking & related work	285	Saleswork, photographic equipment and supplies
224	Weighing	286	Saleswork, amusement and sporting goods
229	Material & production recording, n.e.c.	287	Saleswork, music and musical instruments
	22 THEORY MICH CONTROL OF PROPERTY.	289	Saleswork, commodities, n.e.c.
	23 INFORMATION & MESSAGE DISTRIBUTION		29 MERCHANDISING OCCUPATIONS, EXCEPT SALES AGENTS
230	Messenger and related work		The state of the s
231	Mail sorting, stamping, recording, routing, & rel. work		Sales clerking
232	Clerical work, post office	291	Peddling
233	Mail delivery	292	Route work
234	Mail-preparing & mail-handling-machine work	293	Canvassing and soliciting
235	Telephone work	294	Auctioneering
236 237	Telegraph work	296	Shopping
	Reception & information dispensing work Information & message distribution, n.e.c.	297 298	Demonstrating and modeling Display work
433 1	information & message distribution, n.e.c.	299	Miscellaneous merchandising work, n.e.c.
	24 MISCELLANEOUS CLERICAL		and an analysis of the second
			SERVICES
-240	Collecting		AA DAWEATA AFRICA
241	Adjusting		30 DOMESTIC SERVICE
242	Hotel desk work, n.e.c.	301	Day work
249	Clerical work, direct service, n.e.c.	301 302	Day work Laundry work, private family
447	Miscellaneous clerical work, n.e.c.	303	Housekeeping, private family
		304	Caretaker and yard work
		305	Domestic cooking



			TIPLITALITY CONTROL CEDUTOR
306	Housework, domestic		36 APPAREL & FURNISHINGS SERVICE
307	Child monitor		. In the amount of
309	Domestic services, n.e.c.	361	Laundering service
		362	Dry cleaning service
	31 FOOD AND BEVERAGE PREPARATION AND SERVICE	363	Pressing service
		364	Dyeing & related services
310	Food and beverage service, except ship steward/stewardess	365	Shoe & luggage repair & related services
311	Food serving	366	Shoe shining & related services
312	Bartending	369	Apparel & furnishings services, n.e.c.
313	Cooking, large hotels and restaurants		A PART AND
314	Cooking, small hotels and restaurants		37 PROTECTIVE SERVICE
315	Miscellaneous cooking, except domestic		t and an annual coo
316	Meat cutting, except in slaughtering and packing houses	. 371	Bridge tending & crossing guard services
317	Miscellaneous food and beverage preparation	372	Guard and related services
-318	Kitchen work, n.e.c.	373	Fire protection service
319	Food and beverage preparation and service, n.e.c.	375	Police & related work, public service
		376	Police & related work, except in public service
	32 LODGING AND RELATED SERVICE	377	Law enforcement work, n.e.c.
		378	Military service
320	Boardinghouse and lodginghouse keeping	379	Protective services, n.e.c.
321	Housekeeping, hotels and institutions		
323	Cleaning & related services, hotels, restaurants,		38 BUILDING AND RELATED SERVICE
323	and related establishments		
324	Bellhop and related services	381	Cleaning and related services
329	Lodgings and related services, n.e.c.	382	
329	Lodgings and related services, n.e.c.	388	
	22 PARRERING COCKETOLOGY AND RELATED CERTIFICE	389	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	33 BARBERING, COSMETOLOGY, AND RELATED SERVICE	209	Bulluing and related desired,
220	The Armed Control of the Control of		FARMING, FISHERY, FORESTRY, & RELATED WORK
330	Barbering and related services		rakind, ridizar,
331	Manicuring		A DIANT EARWING
332	Beautician services	•	40 PLANT FARMING
333	Make-up, theatrical		
334	Masseur and related services	401	
335	Bath attendant work	402	
338	Embalming	403	Vegetable farming
339	Barbering, cosmetology, and related service, n.e.c.	404	
		405	Crop specialty farming
	34 AMUSEMENT AND RECREATION SERVICE	406	Horticultural specialty work
		407	Gardening & groundskeeping
340	Bowling alley and billiard parlor services	409	Plant farming, n.e.c.
341	Golf course, tennis court, skating rink, & rel. serv.		
342	Amusement device and concession work		41 ANIMAL FARMING
343	Gambling hall services		
344	Ushering	411	Dairy farming
346	Wardrobe and dressing-room services	412	Poultry farming
349	Amusement and recreation services, n.e.c.	- 413	Livestock farming
		419	
	35 MISCELLANEOUS PERSONAL SERVICE		
	200000000000000000000000000000000000000		42 MISCELLANEOUS FARMING & RELATED
350	Ship steward/stewardess service		
351	Rail passenger service	421	General farming
352	Host/hostess and steward/stewardess service, n.e.c.	422	
353	Guide service, except hunting and fishing	423	
354	Unlicensed birth attendant and practical nursing serv.	424	Farm machinery operating, n.e.c.
355		429	a to the second starts The Co
356	Attendant work, hosps., morgues, & rel. health serv.	427	MISCEITANCOGO 101
	Animal care, n.e.c.		43 FISHERY AND RELATED
357	Baggage porter service		4) FIGURE MD Marian
358	Checkroom, locker room, and restroom services		Net, seine, and trap fishing
359	Miscellaneous personal services, n.e.c.	431	
		432	Line fishing
		433	
		435	and the state of t
		436	Marine life cultivation a related work
		43	7 Sponge & seaweed gathering
		439	Fishery & related work, n.e.c.



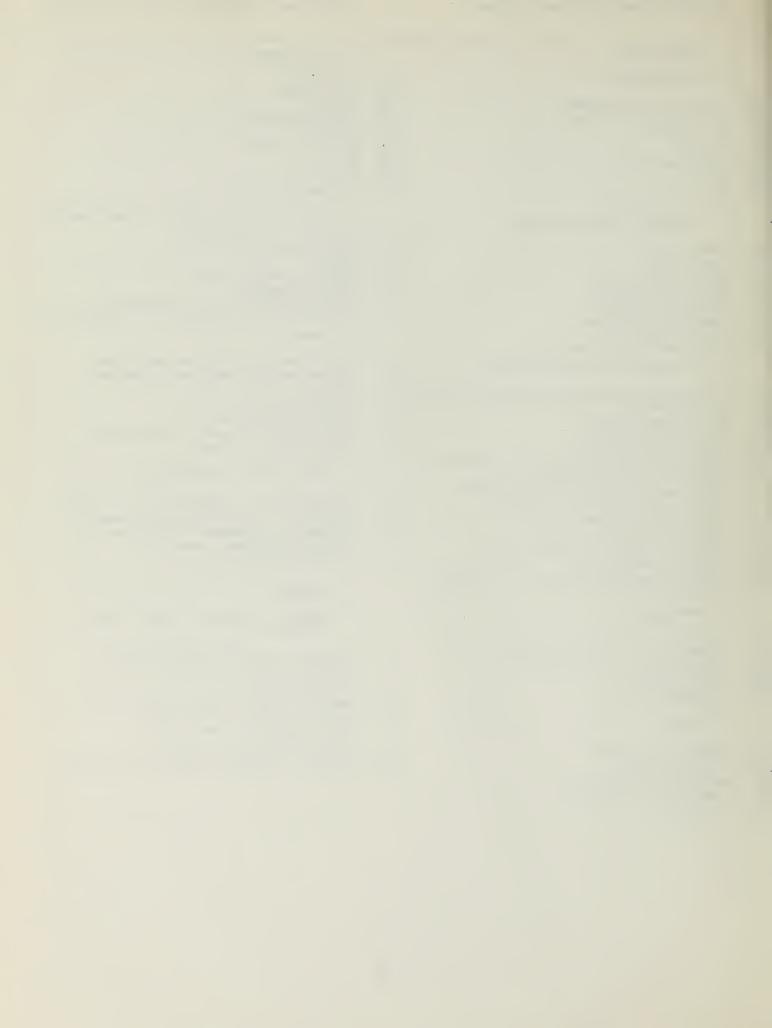
	44 FORESTRY		54 PROCESSING OF PETROLEUM, COAL, NATURAL AND
441	Forest conservation work		MANUFACTURED GAS AND RELATED PRODUCTS
441	Forest products production, except logging	540	Mixing and blending
442	Forestry, n.e.c.	541	Filtering, straining, and separating
447	Totesery, m.e.c.	541	Distilling, subliming, and carbonizing
	45 HUNTING, TRAPPING AND RELATED	543	Drying, heating, and melting
	45 HOHITHU THATTHU AND AREATED	544	Grinding and crushing
451	Hunting and trapping	546	
451	Guide services, hunting and fishing	549	Reacting, n.e.c. Processing, petroleum and related products, n.e.c.
	46 AGRICULTURE SERVICE		55 CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS
461	Cotton ginning and compressing		
465	Blight and pest control and bindweed eradicator	550	Mixing and blending
466	Animal care .	551	Filtering, straining, and separating
467	Animal science services	552	Distilling
469	Agricultural services, n.e.c.	553	Heating, baking, seasoning, melting, and heat treating
407		554	Coating, calendering, laminating, and finishing
	PROCESSING	555	Grinding and crushing
		556	Casting and molding, n.e.c.
	50 PROCESSING OF METAL	557	Extruding
	20 INCORDING OF FIREIN	558	Reacting, n.e.c.
500	Electroplating	559	Processing, chemicals and related products, n.e.c.
501	Dip plating	223	Trocessing, chemicals and related products, m.e.c.
502	Melting, pouring, casting, and related work		56 WOOD AND WOOD PRODUCTS
503	Pickling, cleaning, degreasing, and related work		J6 WOOD AND WOOD INCODUCIS
504	Heat treating	560	Mixing and related work
			_
. 505 509	Metal spraying, coating, and related work	561	Wood preserving and related work
309	Metal processing, n.e.c.	562	Saturating and related work, n.e.c.
	51 OPE DESTRICT AND SOUTHPRE	563	Drying, seasoning, and related work
	51 ORE REFINING AND FOUNDRY	. 569	Processing, wood and wood products, n.e.c.
510	Mixing and related work		57 STONE, CLAY, GLASS, AND RELATED PRODUCTS
	-		
511	Separating, filtering, and related work		
511 512	Separating, filtering, and related work Melting	570	Crushing, grinding, and mixing
		570 571	Crushing, grinding, and mixing Separating
512	Melting		
512 513	Melting Roasting Pouring and casting	571	Separating
512 513 514	Melting Roasting Pouring and casting Crushing and grinding	571 572	Separating Melting Baking, drying, and heat treating
512 513 514 515 518	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work	571 572 573 574	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing
512 513 514 515	Melting Roasting Pouring and casting Crushing and grinding	571 572 573	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming
512 513 514 515 518	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work	571 572 573 574 575	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.o
512 513 514 515 518 519	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS	571 572 573 574 575	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming
512 513 514 515 518	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping,	571 572 573 574 575 579	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.o
512 513 514 515 518 519	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work	571 572 573 574 575 579	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.c 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering
512 513 514 515 518 519	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding,	571 572 573 574 575 579 580 581	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e. of 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying
512 513 514 515 518 519 520	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work	571 572 573 574 575 579 580 581 582	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.o 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating
512 513 514 515 518 519	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work Culturing, melting, fermenting, distilling	571 572 573 574 575 579 580 581	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e. of 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating Ironing, pressing, glazing, staking, calendering,
512 513 514 515 518 519 520 521	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work Culturing, melting, fermenting, distilling saturating, pickling, aging, and related work	571 572 573 574 575 579 580 581 582 583	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e. of S8 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating Ironing, pressing, glazing, staking, calendering, and embossing
512 513 514 515 518 519 520	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work Culturing, melting, fermenting, distilling saturating, pickling, aging, and related work Heating, rendering, melting, drying, cooling,	571 572 573 574 575 579 580 581 582 583	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.o 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating Ironing, pressing, glazing, staking, calendering, and embossing Mercerizing, coating, and laminating
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512 513 514 515 518 519 520 521 522 523 524	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work Culturing, melting, fermenting, distilling saturating, pickling, aging, and related work Heating, rendering, melting, drying, cooling, freezing, and related work Coating, icing, decorating, and related work	571 572 573 574 575 579 580 581 582 583 584 585 586	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.c 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating Ironing, pressing, glazing, staking, calendering, and embossing Mercerizing, coating, and laminating Singeing, cutting, shearing, shaving, and napping Felting and fulling
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512 513 514 515 518 519 520 521 522 523 524 525 526 529	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work Culturing, melting, fermenting, distilling saturating, pickling, aging, and related work Heating, rendering, melting, drying, cooling, freezing, and related work Coating, icing, decorating, and related work Slaughtering, breaking, curing, and related work Cooking and baking, n.e.c. Processing, food and related products, n.e.c. 53 PROCESSING OF PAPER AND RELATED MATERIALS Grinding, beating, and mixing	571 572 573 574 575 579 580 581 582 583 584 585 586 587 589	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.c 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating Ironing, pressing, glazing, staking, calendering, and embossing Mercerizing, coating, and laminating Singeing, cutting, shearing, shaving, and napping Felting and fulling Brushing and shrinking Processing, leather and textiles, n.e.c. 59 PROCESSING OCCUPATIONS, N.E.C. Processing, assorted materials
512 513 514 515 518 519 520 521 522 523 524 525 526 529	Melting Roasting Pouring and casting Crushing and grinding Molding, coremaking, and related work Ore refining and foundry work, n.e.c. 52 PROCESSING OF FOOD, TOBACCO AND RELATED PRODUCTS Mixing, compounding, blending, kneading, shaping, and related work Separating, crushing, milling, chopping, grinding, and related work Culturing, melting, fermenting, distilling saturating, pickling, aging, and related work Heating, rendering, melting, drying, cooling, freezing, and related work Coating, icing, decorating, and related work Slaughtering, breaking, curing, and related work Cooking and baking, n.e.c. Processing, food and related products, n.e.c. 53 PROCESSING OF PAPER AND RELATED MATERIALS Grinding, beating, and mixing Cooking and drying	571 572 573 574 575 579 580 581 582 583 584 585 586 587 589	Separating Melting Baking, drying, and heat treating Impregnating, coating, and glazing Forming Processing, nonmetallic minerals & rel. products, n.e.c 58 LEATHER, TEXTILES, AND RELATED PRODUCTS Shaping, blocking, stretching, and tentering Separating, filtering, and drying Washing, steaming, and saturating Ironing, pressing, glazing, staking, calendering, and embossing Mercerizing, coating, and laminating Singeing, cutting, shearing, shaving, and napping Felting and fulling Brushing and shrinking Processing, leather and textiles, n.e.c. 59 PROCESSING OCCUPATIONS, N.E.C. Processing, assorted materials
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654 659

Typecasting and related work Printing, n.e.c.

		MACHINE TRADES		66 WOOD MACHINING
		(a. 1		
		60 METAL MACHINING	660	Cabinetmaking
			661	Patternmaking
	600	Machining and related work	662	Sanding
	601	Toolmaking and related work	663	Shearing and shaving
	602	Gear machining	664	Turning
	603	Abrading	665	Milling and planing
	604	Turning	666	Boring
	605	Milling and planing	667	Sawing
	606	Boring	668	Chipping
	607	Sawing	669	Wood machining, n.e.c.
и	609	Metal machining, n.e.c.	003	wood machining, n.e.c.
	00)			67 MACHINING STONE, CLAY, GLASS, & RELATED MATERIALS
,		61 METALWORKING OCCUPATIONS, N.E.C.		0/ MACHINING STORE, CLAI, GLASS, & RELATED MATERIALS
н		of Metalworking occurations, N.E.C.	670	Charles and and and and
	610	T 6	670	•
	610	Hammer forging		Abrading and polishing
	611	Press forging -	674	Turning
	612	Forging, n.e.c.	675	Planing and shaping, n.e.c.
	613	Sheet and bar rolling	676	Boring and punching
	614	Extruding and drawing	677	Chipping, cutting, sawing, & related work
	615	Punching and shearing	679	Machining, nonmetallic minerals & rel. materials, n.e.c.
	616	Fabricating machine work		
	617	Metal forming, n.e.c.		68 TEXTILE
	619	Miscellaneous metalworking, n.e.c.		
		3.	680	Carding, combing, drawing, and related work
		62, 63 MECHANICS AND MACHINERY REPAIRERS	681	Twisting, beaming, warping, and related work
				· Spinning
	620	Motorized vehicle and engineering equipment repairing		
	621	Aircraft repairing	684	
	622	Rail equipment repairing		Knitting, except hosiery
	623		685	• • • • • • • • • • • • • • • • • • • •
		Marine equipment repairing	686	Punching, cutting, forming, & related work
	624	Farm machinery repairing	689	Textile machine work, n.e.c.
	625	Engine, power transmission, and rel. equipment rep.		
	626	Metalworking machinery repairing		69 MACHINE TRADES OCCUPATIONS, N.E.C.
	627	Printing and publishing machinery repairing		
	628	Textile machinery and equipment repairing	690	Plastics, synthetics, rubber, & leather working
	629	Special industry machinery repairing	691	Insulated wire & cable fabricating
	630	General industry machinery repairing	692	Fabrication of products from assorted materials
	631	Powerplant machinery repairing	693	Modelmaking, patternmaking, & related work
	632	Ordnance and accessory repairing	694	Fabrication of ordnance, ammunition, &
	633	Business and commercial machine repairing		related products, n.e.c.
	637	Utility equipment repairing	699	Miscellaneous machine work, n.e.c.
	638	Miscellaneous machine installation and repairing		· ·
	639	Mechanical repairing, n.e.c.		BENCH WORK
		, 3,3		
		64 PAPERWORKING		70 FABRICATION, ASSEMBLY, & REPAIR OF METAL PRODUCTS, N.E.C.
	640	Paper cutting, winding, and related work		
	641	Folding, creasing, scoring, and gluing	700	Fabrication, assembly, & repair of jewelry,
	642	Paper sewing		silverware, & related products
	643	Paper corrugating	701	Fabrication, assembly, & repair of tools &
	644	Paper fastening, n.e.c.	,01	related products
	649	Paperworking, n.e.c.	703	Sheet-metal products assembly & repair, n.e.c.
	3.,,	- apermorating, n.c.c.	704	
		45 DRIVETING		Engraving, etching, & related work
	•	65 PRINTING .	705	Filing, grinding, buffing, cleaning, &
	650	man and a second a		polishing, n.e.c.
	650	Typesetting and composing	706	Metal unit assembling & adjusting, n.e.c.
	651		. 709	Fabrication, assembly, & repair of metal products,
	652	Printing machine work		n.e.c.
	653	Bookbinding and related work		
	654	Typecasting and related work		



71	FABRICATION & REPAIR OF SCIENTIFIC & MEDICAL
	APPARATUS, PHOTOGRAPHIC & OPTICAL GOODS,
	WATCHES & CLOCKS, & RELATED PRODUCTS

- 710 Fabrication & repair of instruments for measuring, controlling, & indicating physical characteristics
- 711 Fabrication & repair of optical instruments & lenses
- 712 Fabrication & repair of surgical, medical, & dental instruments & supplies
- 713 Fabrication & repair of opthalmic goods
- 714 Fabrication & repair of photographic equipment and supplies
- 715 Fabrication & repair of watches, clocks & parts
- 716 Fabrication & repair of engineering & scientific instruments & equipment, n.e.c.
- 719 Fabrication & repair of scientific & medical apparatus, photographic & optical goods, watches & clocks, & related products, n.e.c.

72 ASSEMBLY & REPAIR OF ELECTRICAL EQUIPMENT

- 720 Assembly & repair of radio & television receiving sets & phonographs
- 721 Assembly & repair of motors, generators, & related products
- 722 Communications equipment assembly & repair
- 723 Assembly & repair of electrical appliances & fixtures
- 724 Winding & assembly of coils, magnets, armatures, & related products
- 725 Assembly of light bulbs & electronic tubes
- 726 Assembly & repair of electronic components & accessories, n.e.c.
- 727 Storage battery assembly
- 728 Fabrication of electrical wire and cable
- 729 Assembly & repair of electrical equipment, n.e.c.

73 FABRICATION & REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS

- 730 Fabrication & repair of musical instruments & parts
- 731 Fabrication & repair of games and toys
- 732 Fabrication & repair of sporting goods
- 733 Fabrication & repair of pens, pencils, & office & artists' materials, n.e.c.
- 734 Fabrication of notions
- 735 Fabrication & repair of jewelry, n.e.c.
- 736 Fabrication & repair of ordnance & accessories
- 737 Fabrication of ammunition, fireworks, explosives & related products
- 739 Fabrication & repair of products made from assorted materials, n.e.c.

74 PAINTING, DECORATING, & RELATED OCCUPATIONS

- 740 Brush painting
- 741 Spray painting

3

- 742 Staining, waxing, & related work
- 749 Painting, decorating, & related work, n.e.c.

75 FABRICATION & REPAIR OF PLASTICS, SYNTHETICS, RUBBER, AND RELATED PRODUCTS

- 750 Fabrication & repair of tires, tubes, tire treads, & related products
- 751 Laying out and cutting, n.e.c.

- 752 Fitting, shaping, cementing, finishing, and rel. wk., n.e.c.
- 753 Fabrication and repair of rubber and plastic footwear
- 754 Fabrication and repair of miscellaneous plastic products
- 759 Fabrication and repair of plastics, synthetics, rubber, and related products, n.e.c.

76 FABRICATION AND REPAIR OF WOOD PRODUCTS

- 760 Bench carpentry and related work
- 761 Laying out, cutting, carving, shaping, and sanding, n.e.c.
- 762 Assembly of wood products, n.e.c.
- 763 Fabrication and repair of furniture, n.e.c.
- 764 Cooperage
- 769 Fabrication and repair of wood products, n.e.c.

77 FABRICATION AND REPAIR OF SAND, STONE, CLAY, AND GLASS PRODUCTS

- 770 Fabrication and repair of jewelry, ornaments, and related products
- 771 Stone cutting and carving
- 772 Glass blowing, pressing, shaping, and related work, n.e.c.
- 773 Coloring and decorating brick, tile, and related products
- 774 Fabrication and repair of pottery and porcelain ware
- 775 Grinding, filing, polishing, frosting, etching, cleaning, and related work, n.e.c.
- 776 Fabrication and repair of asbestos and polishing products, abrasives, and related materials
- 777 Modelmaking, patternmaking, moldmaking, and related work
- 779 Fabrication and repair of sand, stone, clay and glass products, n.e.c.

78 FABRICATION AND REPAIR OF TEXTILE, LEATHER, AND RELATED PRODUCTS

- 780 Upholstering and mattress and bedspring fabrication and repair
- 781 Laying out, marking, cutting, and punching, n.e.c.
- 782 Handsewing, mending, embroidering, knitting, and related work, n.e.c.
- 783 Fur working
- 784 Fabrication and repair of hats, caps, gloves, and related products
- 785 Tailoring and dressmaking
- 786 Machine sewing, garment
- 787 Machine sewing, nongarment
- 788 Fabrication and repair of footwear
- 789 Fabrication and repair of textiles, leather, and related products, n.e.c.

79 BENCH WORK OCCUPATIONS, N.E.C.

- 790 Preparation of food, tobacco, and related products, n.e.c.
- 794 Fabrication of paper products, n.e.c.
- 799 Miscellaneous bench work, n.e.c.



Ø		STRUCTURAL WORK		86 CONSTRUCTION OCCUPATIONS, N.E.C.
B		80 METAL FABRICATING, N.E.C.	860	Carpentry and related work
0			861	Brick and stone masonry and tile setting
	800	Riveting	862	Plumbing, gas fitting, steam fitting, and
	801	Fitting, bolting, screwing, & related work		related work
	304	Sheet metal work	863	Asbestos and insulation work
п	805	Boilermaking & related work	864	Floor laying and finishing work
	306	Transportation equipment assembling & related	865	Glass setting and related work
и	300	work	866	Roofing and related work
	807	Body work, transportation equipment	869	Miscellaneous construction work, n.e.c.
и	307	Miscellaneous metal fabricating, n.e.c.	009	miscellaneous construction work, n.e.c.
п	309	Aiscellaneous metal labricating, n.e.c.		OA COMPLICATION ACCOUNTAGE OF STATE
и		OI THE DODG OF AND CHARACTER AND DELLARD		89 STRUCTURAL WORK OCCUPATIONS, N.E.C.
м		81 WELDERS, FLAME CUTTERS, AND RELATED	901	C
м	210	Amp 1 34	891	Structural maintenance, n.e.c.
ш	810	Arc welding	892	Hoisting and conveying, n.e.c.
и	811	Gas welding	899	Miscellaneous structural work, n.e.c.
а	812	Combination arc and gas welding		
и	813	Resistance welding		MISCELLANEOUS WORK
ш	814	Brazing, braze-welding, & soldering		
ш	815	Lead burning		90 MOTOR FREIGHT
ш	316	Flame and arc cutting		
	819	Welding, flame cutting, & related work, n.e.c.	900	Concrete-mixing-truck driving
ш			902	Dump-truck driving
и		82 ELECTRICAL ASSEMBLING, INSTALLING, & REPAIRING	903	Truck driving, inflammables
и			904	Trailer-truck driving
ш	320	Generator, motor, & related powerplant equipment	905	Heavy truck driving
ш		assembly, installation, & repair	906	Light truck driving
ш	821	Transmission & distribution line & circuit	909	Motor freight transportation, n.e.c.
ш		assembly, installation, & repair		
ш	822	Wire communication, detection, & signaling		91 TRANSPORTATION OCCUPATIONS, N.E.C.
ш	200	equipment assembly, installation, & repair		
ш	823	Electronic communication, detection, & signaling	910	Railroad transportation
ш	201	equipment assembly, installation, & repair	911	Water transportation
п	324	Lighting equipment & building wiring assembly,	912	Air transportation
ш	226	installation, & repair, n.e.c.	913	Passenger transportation, n.e.c.
и	825	Transportation & materials handling equipment	914	Pumping and pipeline transportation .
v	106	assembly, installation, & repair, n.e.c.	915	Parking lot and related service work
и	826	Industrial apparatus assembly, installation,	919	Miscellaneous transportation work, n.e.c.
и	227	and repair, n.e.c.		AA BAGULATIG AND WARRETALA WANTE TWA
и	827	Large household appliances & similar commercial &		92 PACKAGING AND MATERIALS HANDLING
Ŧ	212	industrial equipment assembly, installation, & repair	200	
и	328	Electrical & electronic product fabrication,	920	Packaging
и	220	installation, & repair, n.e.c.	921	Hoisting and conveying
п	829	Assembly, installation, & repair of electrical	922	Materials moving and storing, n.e.c.
и		products, n.e.c.	929	Packaging and materials handling, n.e.c.
н		9/ DATUTING DIAGRETING CARRESTON		AS ACCUMANTANCE TO SUMMER CONTAINS OF WINDRANG
		84 PAINTING, PLASTERING, WATERPROOFING, CEMENTING, AND RELATED		93 OCCUPATIONS IN EXTRACTION OF MINERALS
ш		AND RELATED	0.20	Boring, drilling, cutting, and related work
	840	Construction & maintenance maintenance to anti-	930 931	Blasting
и	841	Construction & maintenance painting & related work		3
н	842	Paperhanging	932	Loading and conveying
н	343	Plastering & related work	933	Crushing Screening and related work
	844	Waterproofing & related work	934	
ш	845 -	Cement & concrete finishing & related work	939	Extraction of minerals, n.e.c.
ш	849	-t doring barnering a resucce work		O/ OCCUPATIONS IN LOCATIO
1	043	Painting, plastering, waterproofing, cementing, &		94 OCCUPATIONS IN LOGGING
		related work, n.e.c.	940	Timber cutting and related work
	2	85 FYCAVATING CRADING BAUTNO C DELATED	940	Log inspecting, grading, scaling, and related work
8	3	85 EXCAVATING, GRADING, PAVING, & RELATED		
1	850	Everyander creding (males)	942	Log sorting, gathering, storing, and related work
X	851	Excavating, grading, & related work	949	Logging, n.e.c.
	852	Drainage & related work		
	853	Concrete paving Asphalt paving		
	359			
	333	Excavating, grading, paving, & related work, n.e.c.		



95 PRODUCTION AND DISTRIBUTION OF UTILITIES

- 950 Stationary engineering
- 951 Firing and related work
- 952 Generation, transmission, and distribution of electric light and power
- 953 Production and distribution of gas
- 954 Filtration, purification, and distribution of water
- 955 Refuse and sewage disposal
- 956 Distribution of steam
- 957 Transmission of communications, n.e.c.
- 959 Production and distribution of utilities, n.e.c.

96 AMUSEMENT, RECREATION, AND MOTION PICTURE OCCUPATIONS, N.E.C.

- 960 Motion picture projecting
- 961 Modeling and related work, n.e.c.
- 962 Motion picture production, n.e.c.
- 963 Radio and television production, n.e.c.
- 964 Theatrical and related entertainment production, n.e.c.
- 969 Miscellaneous amusement, recreation, and motion picture work, n.e.c.

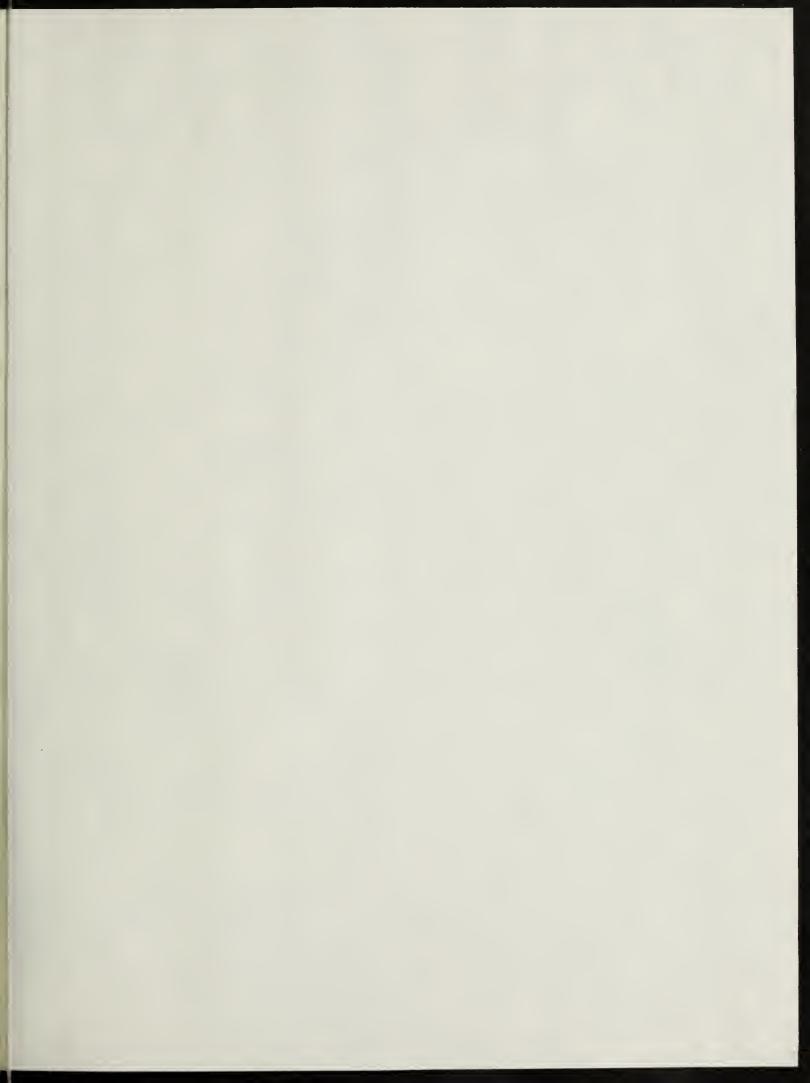
97 GRAPHIC ART WORK

- 970 Art work, brush, spray, or pen
- 971 Photoengraving
- 972 Lithography and related work
- 973 Hand composition, typesetting, and related work
- 974 Electrotyping and related work
- 975 Stereotyping and related work
- 976 Darkroom work, n.e.c.
- 977 Bookbinding and related work
- 979 Graphic art work, n.e.c.

999 INFORMATION NOT AVAILABLE



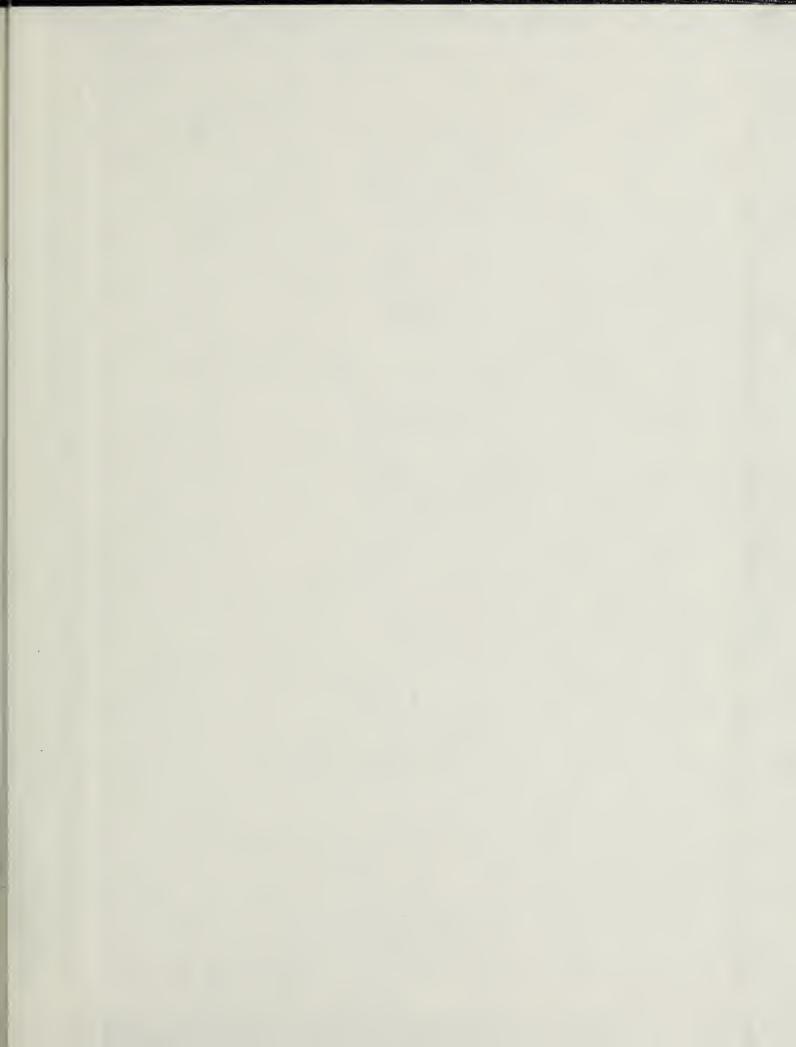




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